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The Effects of Military Sexual Trauma and Depressive Symptoms on Reintegration

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THE EFFECTS OF MILITARY SEXUAL TRAUMA AND DEPRESSIVE SYMPTOMS ON REINTEGRATION

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ABSTRACT

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Reintegration is a challenge for many veterans returning to civilian roles after military service. Difficulties range from an assortment of issues such as self-care to community participation. Military sexual trauma may be an experience that alters or changes veterans and result in difficulty in reintegration. Specifically, it was predicted that military sexual trauma would indirectly affect reintegration, via depressive symptoms. In addition, locus of control was predicted to play a role in how military sexual trauma impacts reintegration with external locus of control acting as a buffer. Participants were a cross-sectional community sample of both female veterans who reported having experienced and not experienced. They completed an online survey. Both endorsing military sexual harassment and military sexual assault predicted reintegration difficulties; however, depressive symptoms fully mediated associations between both forms of military sexual trauma (i.e., sexual harassment and sexual assault) and reintegration difficulties. Locus of control did not significantly moderate the pathway between military sexual trauma and reintegration nor the pathway between military sexual trauma and depressive symptoms. In fact, the significant direct associations of locus of control on depressive symptoms and reintegration were in the opposite direction of what was predicted in that external locus of control was associated with more reintegration difficulties and depressive symptoms. The results suggest the importance of reducing military sexual trauma and reintegration assistance programs.

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INTRODUCTION

Reintegration from military service to civilian life is often challenging; however, those who experience military sexual trauma may find it even more difficult. Military sexual trauma is common in the military. The Department of Defense (2019) annual report on military sexual trauma found that 13,000 (6.2%) of female service members reported military sexual assault in fiscal year 2018. This represents a statistically significant increase compared to the previous year, when 4.3% of female service members reported military sexual trauma. Military sexual trauma has been associated with aspects related to reintegration, such as interpersonal difficulties, difficulty obtaining employment, health problems, and a lack of purpose (Crome, & McCabe, 1995; Harned et al., 2002; Katz et al., 2007; Skinner et al., 2000; Walker et al., 2005; Willness et al., 2007). According to Sayer et al. (2011), reintegration should be viewed as a collection of domains rather than individual problems. Although military sexual trauma has been associated with poor mental health, less understood is the way through which military sexual trauma impacts reintegration. A possible explanation involves depression, as depression is common among female service members who have experienced military sexual trauma (Haaken & Palmer 2012), and depression has been found to negatively impact aspects of reintegration (Moriarty et al., 2015). The present study investigates associations between military sexual trauma, depression, internal locus of control, and reintegration among female veterans.

Reintegration

Reintegration is the process used to describe the challenges and experiences that service members face when they discharge from the military, reunite with family, the community, and transition to civilian roles (Doyle & Peterson, 2005; Sayer et al., 2014). Reintegration involves

participation in community activities, finding new employment or pursuing education, maintaining interpersonal relationships with military friends, civilian friends, family members, and significant others, as well as maintaining a residence, practicing self-care, and finding a purpose in life (Sayer et al., 2011). Sayer et al. (2011) report that all military branches require their service members to complete programs related to reintegration before discharge. The program includes information on housing, benefits, finding meaning, and interpersonal relationships. In fact, the Department of Defense has a program to help veterans with reintegration called the, "Yellow Ribbon Reintegration Project" to assist with areas related to reintegration such as finances, relationships, health, and career opportunities (Department of Defense, 2017b).

Resnik et al.'s (2012) paper on the difficulties defining reintegration proposed that measures assessing reintegration should include components following the theoretical framework of the International Classification of Health, Disability, and Functioning developed by the World Health Organization. The International Classification of Health, Disability, and Functioning defines areas to consider when assessing functioning (Resnik et al., 2012). The VA Rehabilitation Research and Development Service stated that the following domains should be considered in reintegration: social (e.g., spending time with friends and family), work (e.g., attaining employment), education (e.g., participating in activities that promote learning), parental (e.g., providing care for children), spouse/significant other (e.g., maintaining a long term relationship), spiritual/religion (e.g., engaging in activities that promote one's spirituality), leisure (e.g., participating in activities that are relaxing and enjoyable), domestic life (e.g., maintaining a home), civic (e.g., volunteering), self-care (e.g., grooming), and economic life (e.g., financial responsibility).

The importance of reintegration cannot be understated, as 2.77 million service members have deployed to a combat zone or served in a non-combat zone since 9/11 (Wenger et al., 2018). This number indicates how far-reaching the reintegration process has been, and will continue to be, as all surviving service members have, or will, experience reintegration. Further, many veterans characterize reintegration as challenging. In a sample of 754 Operation Enduring Freedom and Operation Iraqi Freedom combat veterans, one-quarter of the sample reported some difficulties, and one-half of the sample reported extreme difficulties in productivity, community participation, revealing personal thoughts and feelings to others, and managing one's health post-deployment (Sayer et al., 2010). In addition, 96% of the sample reported a desire to have access to services to help with reintegration, such as marital therapy, individual therapy, educational classes, information about veterans' benefits, and assistance with information relating to jobs and schooling (Sayer et al., 2010).

Although much of the focus and research on reintegration has been on veterans deployed to a combat or war zone (Sayer et al., 2010), reintegration is likely to be difficult for those who complete humanitarian and other types of deployments, as well as those stationed outside the United States, or for those who are stationed in the United States. Difficulties with reintegration may be the discord with military culture and civilian culture as most military personnel have some level of military identity. Coll and colleagues (2011) explain that the difficulty with reintegration is equivalent to culture shock that immigrants experience when entering the United States for the first time, as the military operates independently with its own rules, values, traditions, and norms. Further, the military is essentially a lifestyle rather than a job per se. As a consequence, reintegration may involve clashes between the two cultures, that is, the service member's rules and values while in the military, and the process of adaptation once they leave

the military. In fact, some have argued that reintegration should be considered an acculturation process, in which the veteran must adapt to civilian culture while at the same time trying to maintain some desired aspects of a military identity (Koenig et al., 2014). There are some incongruencies between civilian culture and military culture, which results in the tension that Koenig and colleagues (2014) found. For example, accountability is a major value in the military as it is important to be accountable for one's gear and to be knowledgeable about the mission, as a mistake could lead to the death of members of the unit or a failure of the mission. To civilians, the level of accountability that veterans have can be perceived as possessive, as veterans may want to control and have access to other peoples' possessions (Sayer et al, 2011). In fact, the U.S. Department of Veterans Affairs Office of Transition and Economic Development (2020) reports that over half of their sample of 165,236 veterans reported that incongruencies between military and civilian workforce culture and norms was one of the main challenges to reintegration.

Additionally, it may be helpful to view the challenge of reintegration as transitioning from a collectivist culture to a more individualistic culture, common to many U.S. civilians (Bryan et al., 2012). For example, the collectivist values are shown with the military's value of unit cohesion. Unit cohesion is beneficial because it increases the likelihood of successful missions, something that requires strong bonds between members of the unit, and the ability to sacrifice individual wants and desires for the success of the military mission (i.e., the betterment of the collective good) (Coll et al., 2011). This strong value of unit cohesion can conflict with reintegration because strong camaraderie with fellow service members can create an anti-civilian attitude (Davenport, 1987), which may impact service members' ability to work effectively and respectfully with civilians. The anti-civilian attitude may impact reintegration in that the ability

to obtain employment and the ability to have healthy relationships with non-military friends, family members, and coworkers may be threatened.

Reintegration difficulties are so prevalent that a therapeutic program called BATTLEMIND was developed to address these issues, helping veterans reframe their military values to be more congruent with civilian life (Adler et al., 2011). BATTLEMIND is an acronym standing for common differences between civilians and service members. For example, "B" stands for buddies, which indicates the value of unit cohesion and strong military friendships, but it can lead to disconnection or withdrawal from civilian family members and friends. The BATTLEMIND intervention helps train veterans to use the friendship bonding techniques used with their military buddies in their civilian relationships (Adler et al., 2011).

Given the challenge with transition that many military members experience, qualitative studies have identified themes associated with reintegration that explain why reintegration is a difficult process for veterans. Many veterans struggle with adapting their military values or skillsets to civilian life (Ahern et al., 2015; Demers, 2011; McCormack & Ell, 2017). McCormack and Ell (2017) called this theme "On the Rubbish Pile", that is, a feeling of being useless and unprepared for civilian duties or roles. Demers (2011) called this theme "Crisis of Identity", involving difficulties accepting civilians' roles and battling the desire to retreat from a civilian lifestyle. In fact, Demers (2011) reported that some of the veterans believed they were better than civilians and did not want to downgrade to the civilian role. Moreover, Ahern et al. (2015) called it "Searching for a New Normal", involving the active process of discovering new normal routines and roles.

Other themes among veterans who experience reintegration include the feeling of disconnection (Ahern et al., 2015; Demers, 2011; McCormack & Ell, 2017). The homecoming

theory developed after World War II (Schuetz, 1945), explains how this disconnection occurs in relation to veterans. The homecoming theory states that veterans and their civilian family members, friends, and significant others experience a shock when veterans return. The reason for this shock is that there is the expectation that when the veteran returns home, everything will return to the way it was before deployment. While deployed, veterans and civilians have unique experiences, altering how they think and behave. The disconnect in space and time, experienced by veterans and civilians, decreases their intimacy. Schuetz (1945) describes intimacy as reliable knowledge of others, cultural tendencies, and a place. This intimacy allows for people to make predictions, anticipate reactions, and make interpretations, which provides comfort. Schuetz (1945) mentions that 'to feel at home' means to experience a high magnitude of familiarity and intimacy. This separation causes veterans to lack the sensation of feeling at home. The reintegration process includes having to reconnect and relearn.

Although this theory was created to explain reintegration of WWII veterans, it applies to veterans from recent era wars. Demers (2011) found that veterans are somewhat shocked when they see that their civilian friends have changed while they were in the military and their family has changed and grown when they were away or heavily involved in their military careers. In addition, Demers (2011) found that veterans are aware of the expectation from others to return to the roles and person that the veteran was before their military experiences, but veterans believe they cannot do so because their experiences changed how they act and see the world. Likewise, Ahern and colleagues (2015) found that U.S. veterans who were part of U.S. missions Operation Enduring Freedom (i.e., War in Afghanistan) and Operation Iraqi Freedom (i.e., Iraqi War) report feeling disconnected from family and believe civilian life is chaotic due to poor structure. These qualitative studies seem to echo themes that the homecoming theory describes, such as

lack of intimacy, which impairs the ability to predict and anticipate events, reactions, and actions. The lack of intimacy may be a reason veterans report that civilian life appears chaotic.

As discussed, there are many reasons reintegration can be a challenge for veterans. Not only is it a distressing event in a veteran's life, but clinicians and researchers should be knowledgeable about reintegration because it is correlated with drug use problems, post-traumatic stress disorder, and alcohol use problems (Pietrzak et al., 2009; Sayer et al., 2011). All these disorders are prevalent in the military (Bray et al., 2009; Burnett-Zeigler et al., 2011; Calhoun et al., 2008; Fulton et al., 2015). It would benefit the Veterans Administration and the Department of Defense to develop strategies to make reintegration less difficult for veterans. Studies have indicated that the process of reintegration can vary significantly with Ahern et al. (2015) reporting it takes a year to reintegrate, whereas Sayer et al. (2015) reports the process takes several years. Many variables may impact reintegration, such as the number of years in the military; however, experiences during the military also may impact reintegration. Currently, there is little research explaining why the length of time to reintegrate varies widely.

Military Sexual Trauma

A possible variable that may negatively influence the ability to successfully reintegrate is military sexual trauma. Military sexual trauma has been defined in many ways by different researchers. The Veterans Administration defines military sexual trauma as psychological trauma that a veteran may experience following sexual harassment, and/or physical assault, that is sexual in nature, while in military service or in training (Stander & Thomsen, 2016). However, the Department of Defense differentiates sexual assault and sexual harassment as separate entities, defining each of those separately (Stander & Thomsen, 2016). Sexual harassment is defined as "...conduct that involves unwanted sexual advances, requests for sexual favors, and deliberate or

repeated offensive comments or gestures of a sexual nature..." (Department of Defense 2019a, p. 2). The Department of Defense (2019a) specifies situations in which behavior is considered sexual harassment. Such circumstances include when the behavior occurs due to a person's career or salary, and when it hinders work performance or creates a hostile environment. Sexual assault is "...referred to as a range of crimes, including rape, sexual assault, forcible sodomy, aggravated sexual contact, abusive sexual contact, and attempts to commit these offenses" (Department of Defense 2019b, p. 6).

Most studies have combined both sexual assault and sexual harassment (Haskell et al., 2010; Katz et al., 2007; Kimerling et al., 2007; Maguen et al., 2010). This grouping could be problematic because there is a possibility that sexual harassment and sexual assault have different effects. For example, Katz and colleagues (2012) found that only verbal harassment was correlated with factors like career difficulties, social problems, health issues, and relationship issues. However, in the Katz et al. (2010) study few participants reported sexual assault or rape. Specifically, 18 men (4%) and 5 women (8%) reported sexual assault or rape, which means that they may not have had the power sufficient to detect differences between sexual harassment and sexual assault.

Estimates of military sexual trauma vary, depending on the type of questions researchers used while interviewing veterans and the specific definition of military sexual trauma. For this reason, it is difficult to provide an accurate representation of the prevalence of military sexual trauma (Surís & Lind, 2008). Moreover, the many ways that military sexual trauma has been operationalized may explain the discrepancy in reported prevalence rates. Specifically, a review of 26 studies of military sexual trauma determined that prevalence rates range from 20% to 43%, depending on the method and operational definition of military sexual trauma (Surís & Lind,

2008). The Department of Defense's (DoD) 2018 fiscal year report on military sexual assault found that 6.2% of active duty females reported sexual assault, and 24.2% reported sexual harassment, which represents a 1.2% increase from the 2016 fiscal year report (Department of Defense, 2019b). Sexual harassment has also increased as the Department of Defense (2019a) found 236 more reports, or a 24% increase, in formal complaints during the 2018 fiscal year as compared to the 2017 fiscal year, with 61% of those complaints verified upon investigation. These increases demonstrate the importance of studying military sexual trauma as the rate of military sexual trauma has increased and most reports are substantiated.

There are a number of reasons why the rate of military sexual trauma may be high. One reason may be hypermasculinity and the focus on power in the military. In fact, the Veterans Administration views and treats military sexual assault accordingly (Haaken & Palmer, 2012) Specifically, according to Haaken and Pamer (2012), sexual assault is viewed as a method for male soldiers to bond with each other and to create unit cohesion by excluding women. In the military, soldiers are stripped of their identities and forced to conform to the military identity, leading to some feelings of powerlessness (Williams & Bernstein, 2011). The military values hypermasculinity to promote powerfulness, dominance, and achievement-oriented service members, so service members seek to increase their own power and control, which may involve having control over a female’s body (Williams & Bernstein, 2011). The Department of Defense 2018 fiscal report on military sexual trauma reported that "unhealthy workplace climates," defined as including gender discrimination, hostility, or sexual harassment, were positively correlated with sexual assault (Department of Defense, 2019b). Specifically, one in five of female service members who experienced sexual harassment also endured sexual assault (Department of Defense, 2019b).

Military Sexual Trauma and Reintegration

Military sexual trauma may play a role in reintegration, as it is an event that may change an individual. In the homecoming theory, the mechanism that makes reintegration challenging is the presence of events that change veterans and their civilian loved ones (Schuetz, 1945). Military sexual trauma may change the veteran in several ways, such as by the loss of a feminine identity for women (Haaken & Palmer, 2012). Additionally, victims commonly report feelings of self-blame or shame stemming from the sexual assault (Isely & Gehrenbeck-Shim, 1997; Petrak, 2002). These emotions may be especially prevalent depending on the civilian loved ones' reactions to the veteran who experienced military sexual trauma. Aherns (2006) found in her qualitative study that negative reactions from loved ones about the sexual assault (e.g., implying it was a choice to have sex rather than seeing it as rape, telling the victim to try and forget it) reinforce self-blame. Self-blame and shame may make it difficult to carry out required activities of reintegration. If service members who experienced military sexual trauma find that their civilian loved ones do not respond in a supportive manner, their relationships may be impaired or the fear of responses from others may deter the development of relationships. Thus, unsupportive reactions may be a reason why studies have found that interpersonal problems arise after being sexually assaulted (Crome, & McCabe, 1995; Walker et al., 2005).

Along with interpersonal problems, military sexual trauma has been associated with other components involved in the reintegration process. For example, Pavao et al. (2013) found that among homeless female veterans, 39.7% experienced military sexual trauma. The high percentage of sexual assault among homeless female veterans suggests that military sexual trauma may hinder one’s ability to perform functions that prevent them from becoming homeless. Brignone et al. (2016) found that military sexual trauma was significantly associated

with homelessness after deployment. Moreover, Skinner and colleagues (2000) found that those who had experienced sexual assault or sexual harassment experienced more challenges than their counterparts on several reintegration aspects such as attaining employment, feeling lost, which may be the equivalent of difficulty finding a purpose in life, trouble settling down, and more mental health problems. In this small sample of 18 female veterans, Katz et al. (2007) found that military sexual trauma was significantly correlated with difficulty readjusting as measured by the Iraq and Readjustment Inventory. Of note, the Iraq and Readjustment Inventory contains questions about interpersonal relationships/social connection, career, and concerns about Iraq (e.g., "Feeling like I still have responsibilities in Iraq"). Using the Post-Deployment Readjustment Inventory, and with a larger sample, Katz et al. (2012) and found that military sexual trauma was correlated with career challenges, intimacy problems, and social difficulties. Ahern and colleagues (2015) suggest that reintegration seems to take longer for those who have encountered sexual assault while in the military; however, they also note that veterans who endure mental disorders take longer to reintegrate as well. Military sexual trauma may make reintegration more difficult in of itself or perhaps by the resulting consequence of a mental health problems.

Military Sexual Trauma and Depression

One way that military sexual trauma may influence reintegration is via depression. Clinicians who work with female victims of military sexual trauma, report that most respond with depressed mood rather than anger (Haaken & Palmer, 2012). Other researchers have found that depression is higher among female veterans who have experienced military sexual trauma than among those who have not (Chang et al., 2001; Hankin et al., 1999). One of the reasons that military sexual trauma may lead to depression is due to negative reactions from loved ones about

the sexual assault or sexual harassment (Borja et al., 2006; Campbell et al., 2001; Davis et al., 1991; Moss et al., 1990). It may be that negative reactions are more salient as loved ones are typically the first ones to have the information be revealed to them, and the survivor is likely expecting positive reactions (Campbell et al., 2009). Additionally, it could be that once the survivor experiences a negative reaction, they are less likely to seek support from others resulting in more distress (Ahrens et al., 2007).

In a study of homeless female veterans who experienced military sexual trauma, homeless women had more mental health conditions than their homeless female veterans who had not experienced military sexual trauma. Specifically, 73% of homeless women who had experienced military sexual trauma were depressed versus 59.7% of homeless women who had not experienced military sexual trauma (Pavao et al., 2013). The ability to live independently and take care of oneself is a vital component of reintegration. Although speculation, it is possible that those who experience military sexual trauma had less ability to successfully cope with sexual trauma and/or the disorders resulting from the military sexual trauma, and as a result may have experienced homelessness.

Among civilians, depression has been found to be associated with decreased work productivity (Stewart et al., 2003), interpersonal difficulties in women (Hammen & Brennan, 2002), and academic performance (Deroma et al., 2009). These aspects are part of reintegration. Although these studies did not examine veterans, depression could have similar effects in this population. For example, Moriarty and colleagues (2015) found that among veterans with a traumatic brain injury, depression significantly predicted poor reintegration, whereas relationship quality, physical functioning, PTSD symptoms, and pain did not predict reintegration.

A possible cognitive explanation for why depression would alter these reintegration domains, such as work productivity, is because it affects memory. Budson's (2009) review of studies found that depression had moderate impairments in procedural memory, mild impairments in episodic memory, and possible impairment in working memory. Procedural memory involves remembering, and automatic and unconscious skills, such as driving a car or typing on a keyboard (Budson, 2009). It can be inferred that this impairment would hinder an individual's abilities at work if they are slower at tasks that other people consider basic and that require limited awareness. Episodic memory involves remembering events such as spending time with a friend (Budson, 2009), which hypothetically could affect interpersonal relationships if individuals are unable to contribute to meaningful conversations with shared experiences. In fact, Philippe and colleagues (2013) found that episodic memories were important in relationships because memories that were readily accessible and positive of the participant's partner were positively correlated with relationship quality and relationship longevity.

The Connection Between Military Sexual Trauma, Depression, and Reintegration

The world assumptions theory proposed by Janoff-Bulman (1989) fits nicely to explain the relations between military sexual trauma, depression, and reintegration difficulties. This theory states that people have assumptions that are uncontested and undisputed about themselves and the world, that is, until a trauma occurs which makes them question these assumptions (Janoff-Bulman, 1989). Parkes (1975) said that these assumptions are taught and maintained for many years and are used to help individuals recognize, plan, and act upon in their life. Janoff-Bulman (1989) suggests there are three broad world assumptions which are benevolence of the world, meaningfulness of the world, and worthiness of the self. Benevolence of the world is the belief that, in general, the world is a good place, people are kind, and that atrocities are rare.

Meaningfulness of the world encapsulates the just world theory/myth which is that people get what they deserve. This holds the sentiment that if you are a good person, good things will happen to you. If you are a bad person, bad things will happen to you. Lastly, worthiness of the self includes three factors about the self. Specifically, that one is overall good themselves, they act in an appropriate and controlled manner, and that they have some luck. When a traumatic event occurs, it often violates these beliefs, and individuals are forced to change their basic assumptions. These changes tend to be more negative and cynical which causes a sensation of feeling uncomfortable in an unmanageable and harsh environment resulting in hopelessness and/or helplessness and increases the chances of developing depression (Lilly et al., 2011).

This theory has demonstrated some promise with explaining how trauma and depression are connected in that poor world assumptions (e.g., “People are naturally unfriendly and unkind”) mediated the relation between interpersonal trauma (e.g., sexual assault, nonsexual assault, statutory rape, and torture) and depression severity (Lilly et al., 2011). Non-interpersonal trauma (e.g., natural disaster, accident) was not mediated by world assumptions (Lilly et al., 2011). The violation of benevolent world assumptions may explain why some sexual assault survivors experience interpersonal difficulties after their trauma (Crome, & McCabe, 1995; Walker et al., 2005) as they no longer see people as safe or kind. This theory could easily and readily apply to female veterans who have experienced military sexual trauma. Goodcase et al (2015) argue that military sexual trauma is related to a similar trauma response to incestual rape because military is viewed like family. Many other qualitative studies also find this phenomenon (Ahern et al., 2015; McCormack & Ell, 2017). This intimate connection with the perpetrator can be detrimental because when there is a betrayal of trust, such as through committing the heinous crime of rape or repeated sexual harassment, the victim does not view it with the intensity of a

coworker doing it but rather a family member committing these acts (Goodcase et al., 2015). Therefore, military sexual trauma may be more likely to violate the world assumptions because it is a bigger betrayal of trust and damage the assumption of benevolence of the world.

This change in world assumptions could impact reintegration because it can have a strong influence in their social domain of reintegration. Female veterans may decide to isolate or avoid people because they perceive others as unsafe and hostile. In a qualitative study of female veterans who experienced some kind of psychological or/and physical injury, which included military sexual trauma, Hawkins et al. (2018) found that strong social support is important to reintegration; however, this association may be complicated by the trauma affecting world assumptions. Because of the lack of trust and faith in people, female veterans may not feel comfortable discussing their emotions or thoughts with others. Leslie and Koblinsky (2017) found that many female veterans reported fear of sharing their struggles and feelings with their family because of the fear of burdening them or that the family members would not respond in a supportive way. Even if they do release information about how they feel, those changes in world assumptions may negatively impact the perceptions that the female veteran has of their loved ones. Goodcase et al. (2015) suggest that people will develop negative projections due to the trauma resulting in interpersonal difficulties due to the veteran misinterpreting others' intentions. For example, if a partner tries to show signs of caring for the partner after becoming aware of the military sexual trauma, the female veteran may view that as being intrusive or overbearing because her assumptions have changed about how much she can depend and trust others (Goodcase et al., 2015). Therefore, the partner may be the target of anger (Leslie & Koblinsky, 2017) which may result in difficulties in the relationship.

Many other domains of reintegration could be impacted by the violation of world assumptions that occurs with a trauma like military sexual trauma. One of the female veterans made the point that her lack of trust in people affects her ability to go out in the community because she does not feel comfortable or safe (Hawkins et al., 2018). Feeling unsafe in the community may affect basic reintegration tasks like domestic duties/self-care (e.g., grocery shopping, getting medication), work duties, participation in community events, participating in hobbies, and much more (Resnick et al., 2012; Sayer et al., 2011).

Locus of Control

A variable that may strengthen or decrease the relationship between military sexual trauma and reintegration is locus of control. Locus of control is a construct that describes what and who controls the consequences for the individual and where individuals gain their sense of control (Lefcourt, 1976). Those who are higher on external locus of control have stronger beliefs that outside forces, events, or people control things that happen to the individual. In contrast, those who are higher on internal locus of control believe that they control on what happens to the them (Lefcourt, 1976).

Control is important in successful reintegration. In the homecoming theory, the definition of intimacy is essentially about control. According to the homecoming theory, in order to feel readjusted to civilian life, the veteran must regain their intimacy with others and in their living situation. To feel intimacy, the veteran must be able to predict others' reactions and behaviors. In fact, control or even the illusion of control is important to humans. In a review, Perlmuter and Monty (1977) found that the sense of control affected participants' ability to carry out tasks, anxiety levels, and learning.

The learned helplessness theory states that when people believe that they do not have control over their environment it leads to a decrease in the individuals' motivation, cognitive beliefs, and emotions to make changes in their situation or lives (Maier & Seligman, 1976). They see themselves as being helpless. It could be argued that those who are higher on external locus of control may benefit more than those with internal locus of control. For example, in Ahern et al.'s (2015) qualitative study of reintegration, they found that a successful strategy was understanding that it will take time to reintegrate. In a sense, understanding that reintegration takes time is giving up personal or internal control because the veteran is allowing for the process to happen freely and understanding that they cannot control all their challenges or retreat from the process. It is plausible to think that those who believe they have control over everything that happens to them (i.e., higher internal locus of control) may struggle with reintegration if they cannot understand or let go of the personal control and let time be an external factor determining the process.

Military Sexual Trauma and Reintegration Moderated by Locus of Control

Sexual trauma is damaging because of the loss of control victims experience after an incident, which changes women's perceptions about their safety in a seemingly dangerous world, decreases their self-efficacy, and decreases their belief that they can guide their own recovery (Janoff-Bulman, 1992; Perloff, 1983; Schepple & Bart, 1983). When victims experience positive social reactions in response to their trauma (e.g., no judgment, others believed the victim's experience, offered reassurance, provided comfort, listened), there is greater perceived control over recovery (Ullman & Peter-Hagene, 2014). The loss of control is especially problematic with the military due to environmental conditions of the military making it difficult to regain control back due to the negative social reactions. Reporting may be viewed as a way of taking control of

the situation for some women; however, there are many barriers to reporting that may affect female veterans' sense of control. Female veterans have reported feeling discouraged from reporting military sexual trauma due to negative reactions from superiors and peers (e.g., blame, criticism of their integrity, and disbelief), disbelief that punishments would be given out to the perpetrator, lack of confidentiality, stigma, negative impact on career, and pressure to not disrupt or break the unit up (Burns et al., 2014). Campbell and Raja (2005) found that female veterans experienced barriers when trying to take legal action. For those who chose to report during military service, 70% of the female veterans were encouraged not report, 65% had the legal system refuse to take their report, and 70% said that the legal representative told them it was not serious enough to report (Campbell & Raja, 2005). It could be assumed that those who have higher internal locus of control may experience the most difficulty in this situation, since behaviors taken to regain control back, such as reporting military sexual trauma may result in negative consequences to the survivor, such as hurting their career or experiencing negative reactions. That is, it violates their core belief that they can do things to make the situation better.

Alongside the barriers to report, the survivors often continue to live and work in close contact with their perpetrators as most of the perpetrators are fellow military supervisors and peers (Department of Defense, 2019b; Kimerling et al., 2007). As a result, survivors of military sexual trauma are often unable to control their ability to interact with the perpetrator possible inducing more distress. Those with higher internal locus of control who may believe they can control their reactions to the military sexual trauma may find it more difficult when they are constantly facing triggers such as the perpetrator especially if that service member continues to exhibit harassing or assaulting behavior.

Military Sexual Trauma and Depression Moderated by Locus of Control

However, the effects of locus of control with reintegration may be better explained by the relation it has with military sexual trauma and depression. Military sexual trauma revolves around the perpetrator gaining control. For victims, military sexual trauma is about the loss of control. Northcut and Kienow (2014) explained that the effects of military sexual trauma are exacerbated by three factors known as the "trauma trifecta" which include the loss of identity, retraumatizing experiences from seeking help due to the military culture, and participating in self-damaging behaviors (e.g., cutting, using substances, starving) in order to regain control back and feel reconnected to their bodies. The first trifecta involves losing identity. Female veterans often respond to the military sexual assault as losing their feminine identity. Part of the therapeutic treatment is reclaiming one's feminine identity (Haaken & Palmer, 2012). Northcut and Kienow (2014) explain the loss of identity unique to military members because their professional identities are intertwined with their personal identity due to processes like bootcamp reducing individuality in order to have a successful and well operating military. Further, many military women who have experienced military sexual assault may feel betrayed by the military, that is, the group they conformed to and build their values around, because when they speak out about the assault it is seen as an attack on the group's unity. Moreover, the response is to push the individual who is raising alarms about military sexual trauma out of the group (Northcut & Kienow, 2014). Essentially, the victim loses their military identity whether by choice or by being excommunicated. Social identity may be important in relation to depression. In an integrative review, all 16 studies related to social identity and depression indicated that a strong sense of identifying with a group predicted fewer depressive symptoms (Cruwys et al., 2014). The researchers explained that social identities may be related to depression because they provide a sense of meaning, provide guidance in what to value, and give a sense of direction (Cruwys et

al., 2014). Therefore, those with internal locus of control may find the loss of identity experienced with military sexual trauma more depressing as they believe they have control over what happens to them. They may believe they can control their peers' reactions to them about their military sexual trauma or may believe they can alter the systemic response the military has regarding military sexual trauma. This belief could lead to more depression when they notice no changes.

Further, it has been found that external locus of control may be more beneficial in the aftermath of an uncontrollable negative event. For example, Specht et al. (2011) found that those with external locus of control fared better on life satisfaction than their internal locus control counterparts when their spouse died. Specht et al. (2011) explains that it may be easier for those with external locus of control would have more realistic expectations, and those with internal locus of control would struggle with the fact that they have been impacted by an uncontrollable event. Therefore, those with military sexual trauma and external locus of control may expect the challenges that are experienced in the aftermath of military sexual trauma resulting in less helpless/hopelessness and therefore fewer depressive symptoms.

Other Contributing Factors Affecting Reintegration

It is important to note that there are several other factors that could impact reintegration that should be considered or accounted for in the study. One of those factors is previous sexual assault. Surís and Lind (2008) found that veterans with previous childhood sexual assault were more likely to endure rape as an adult. One study found that more veterans than civilians experienced childhood sexual assault and for longer duration, and with 91% of those veterans reporting the sexual assault occurred by a parental figure (Schultz et al., 2006). The fact that veterans seem to experience more childhood sexual assault is important to note because Sadler et al. (2004) found that in their sample of 520 female veterans, 49% reported joining the military to

escape from a distressing home environment. Thus, previous childhood sexual assault may not only predict future military sexual trauma, but the fact that the veterans perceived the need to escape their environments indicate that their environments may have involved problematic family relationships, limited opportunities for education or career options, and so forth. Thus, when they return to the dysfunctional home environment after discharge, their ability to reintegrate may be impacted because they have difficulty building good relationships with their family, attaining a job or education, or lack resources for good mental and physical health. Related to previous sexual trauma, it is important to assess for any sexual trauma occurring after their discharge from service. Kelly et al. (2011) found that 77% of their sample of female veterans reported sexual abuse after their service indicating that victimization may occur after leaving the military for many female veterans.

Additionally, combat exposure may also impact reintegration. Most of the research on reintegration has solely been conducted on those who were in combat or deployed to Operation Enduring Freedom or Operation Iraqi Freedom (Interian et al., 2012; Orazem et al., 2017; Sayer et al., 2010; Sayer et al., 2011; Sayer et al., 2014; Sayer et al., 2015). Those who face combat may have extra components that interfere with reintegration. For example, a qualitative study by McCormack and Ell (2017) found that war dehumanized the veterans which results in self-loathing, indifference, and rage. Those who are stationed in the United States or non-combat zones are unlikely to see excessive violence that would desensitize them. For example, Hoge et al. (2004) found that in a sample of 894 army infantry service member, 95% saw dead bodies, 69% saw injured civilian women and children, and 50% touched or discovered human remains. Thus, combat exposure and the aftermath of combat is an important factor to consider with reintegration and will be accounted for in this study. Since these factors could be considered

imperative to reintegration, the subsequent variables were covariates in this study: length of time since discharge, deployment, combat exposure, child sexual abuse, and sexual trauma occurring after military service.

Purpose of the Study

The purpose of this study was to investigate the relationship between military sexual trauma and reintegration difficulties in female veterans. First, I examined whether depressive symptoms mediate that relationship between military sexual trauma and reintegration difficulties (e.g., forming relationships with civilian loved ones, maintaining relationships with military buddies, attaining a civilian job or pursuing education, taking care of one's health, community participation, and maintaining a home). Second, I examined if locus of control moderated the relationship between military sexual trauma and reintegration difficulties. Lastly, I examined if a moderated mediation model existed and specifically, whether depressive symptoms mediated the relation between military sexual trauma and reintegration difficulties whether locus of control moderated the relationship between military sexual trauma and depressive symptoms.

Specific study aims and hypotheses were as follows:

Aim 1: To examine the difference between those who have and who have not experienced military sexual trauma on reintegration difficulties.

Hypothesis 1: Female veterans who endorse military sexual trauma would report more reintegration difficulties (e.g., problems with maintaining relationships with civilians and military buddies, community participation, taking care of one's health, maintaining a home) than those who did not endorse military sexual trauma.

Aim 2: To examine whether locus of control moderates the association between military sexual trauma and reintegration difficulties. See Figure 1 for the visual depiction of the model.

Hypothesis 2: Female veterans who report military sexual trauma and have higher internal locus of control would report more reintegration difficulties than those who are lower on internal local of control, that is, have higher external locus of control. That is, higher internal locus of control would strengthen the relationship between military sexual trauma and reintegration difficulties (e.g., problems with maintaining relationships with civilians and military buddies, community participation, taking care of one's health, maintaining a home), whereas higher external locus of control would act as a buffer between these two variables. This relationship would exist even after controlling for length of time since discharge, number of years served in the military, number of deployments, combat exposure, child sexual abuse, and sexual trauma occurring after military service.

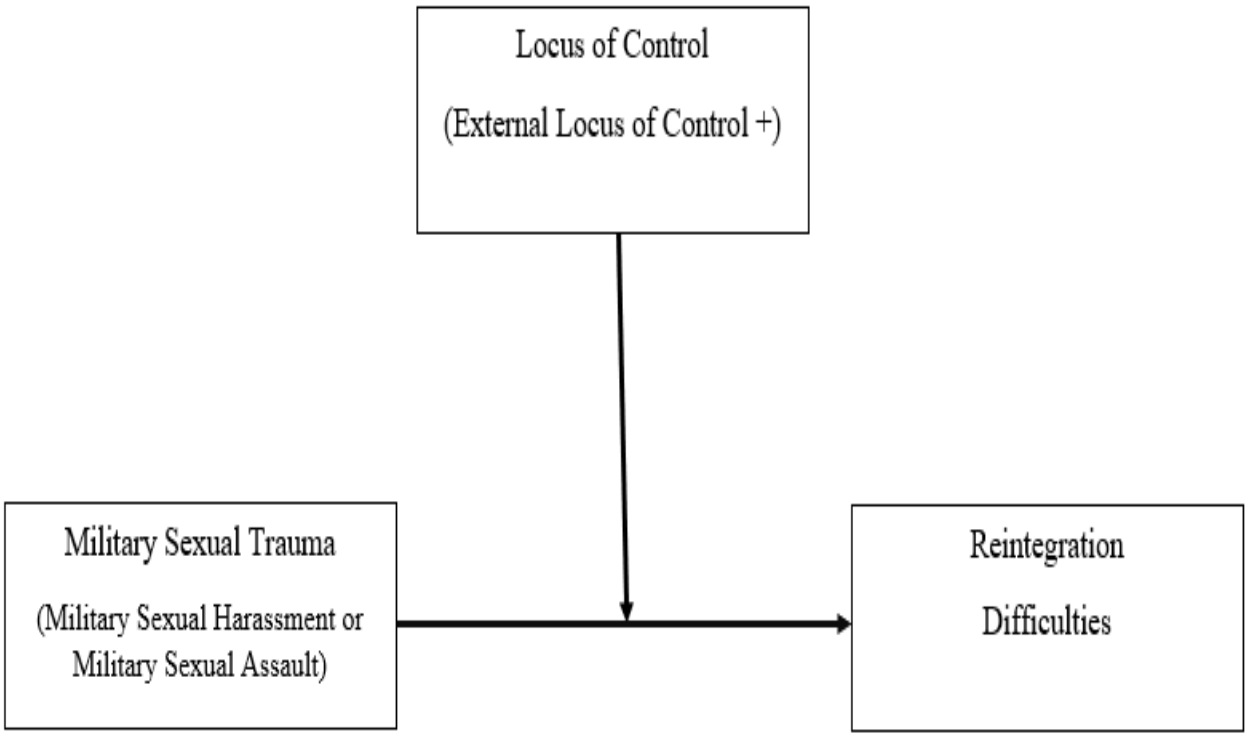

Figure 1. This figure demonstrates the conceptual model for Aim 2, which examines the moderation effect of locus of control on the relation between military sexual trauma and reintegration difficulties. This figure excludes the covariates and does not show the two separate analyses for military sexual assault and military sexual harassment for simplicity.

Aim 3: To examine whether depressive symptoms mediate the association between military sexual trauma and reintegration difficulties. See Figure 2 for the visual depiction of the model.

Hypothesis 3: Depressive symptoms would mediate the relationship between military sexual trauma and reintegration difficulties (e.g., problems with maintaining relationships with civilians and military buddies, community participation, taking care of one's health, maintaining a home). This relation was hypothesized to exist even after controlling for length of time since discharge, number of years served in the military, number of deployments, combat exposure, child sexual abuse, and sexual trauma occurring after military service.

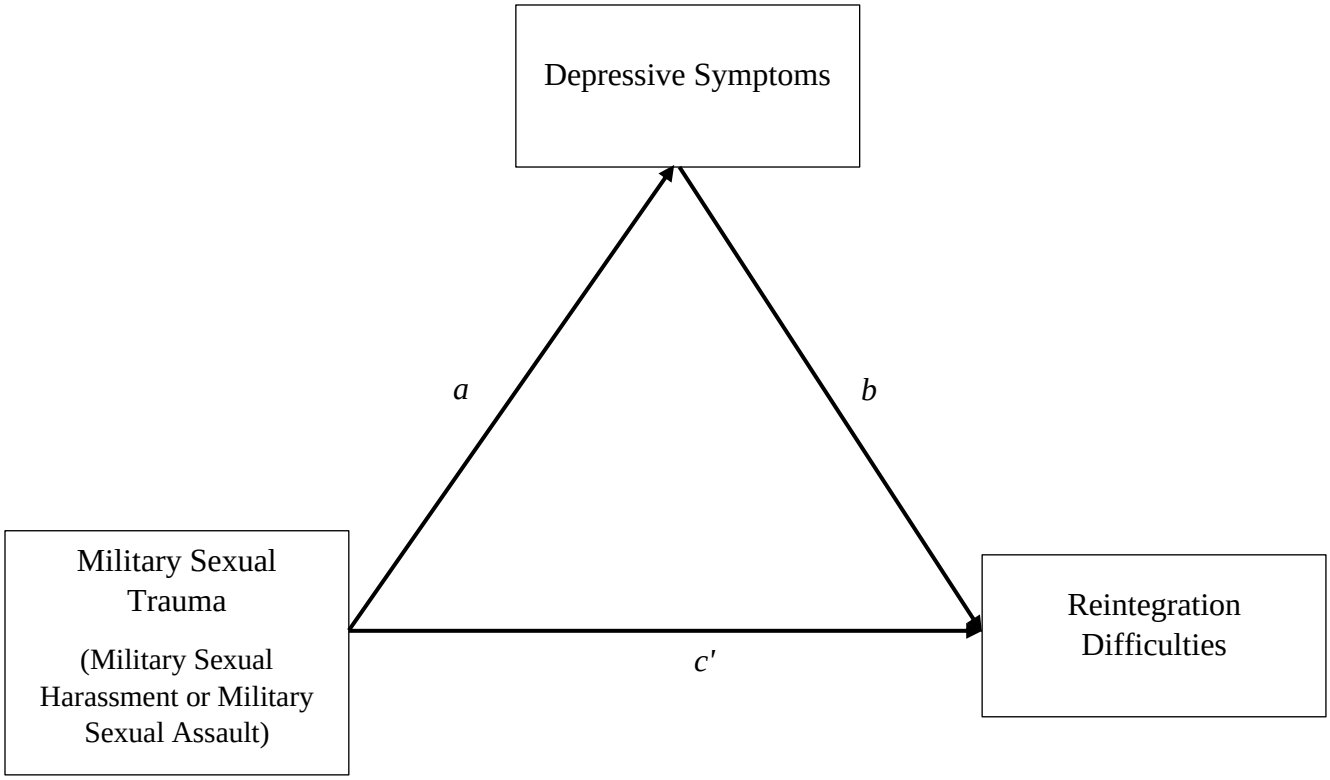

Figure 2. This figure demonstrates the statistical and conceptual model for Aim 3, which is the mediated model. That is, this figure reflects the hypothesis that depressive symptoms would mediate the relation between military sexual trauma and reintegration difficulties. This figure excludes the covariates and does not show the two separate analyses for military sexual assault and military sexual harassment for simplicity.

Aim 4: To examine whether locus of control moderates the association between military sexual trauma and depressive symptoms in a mediation model. See Figure 3 for the visual depiction of model.

Hypothesis 4: Female veterans who report military sexual trauma and have higher internal locus of control would report more depressive symptoms than those who are higher on external locus of control because internal locus of control would strengthen the relationship between military sexual trauma and depression symptoms, whereas lower on internal locus of contract, that is, higher external locus of control would serve to buffer the association between military sexual trauma, depressive symptoms, and reintegration. This relation would exist even with controlling for length of time since discharge, deployment, combat exposure, child sexual abuse, and sexual trauma occurring after military service.

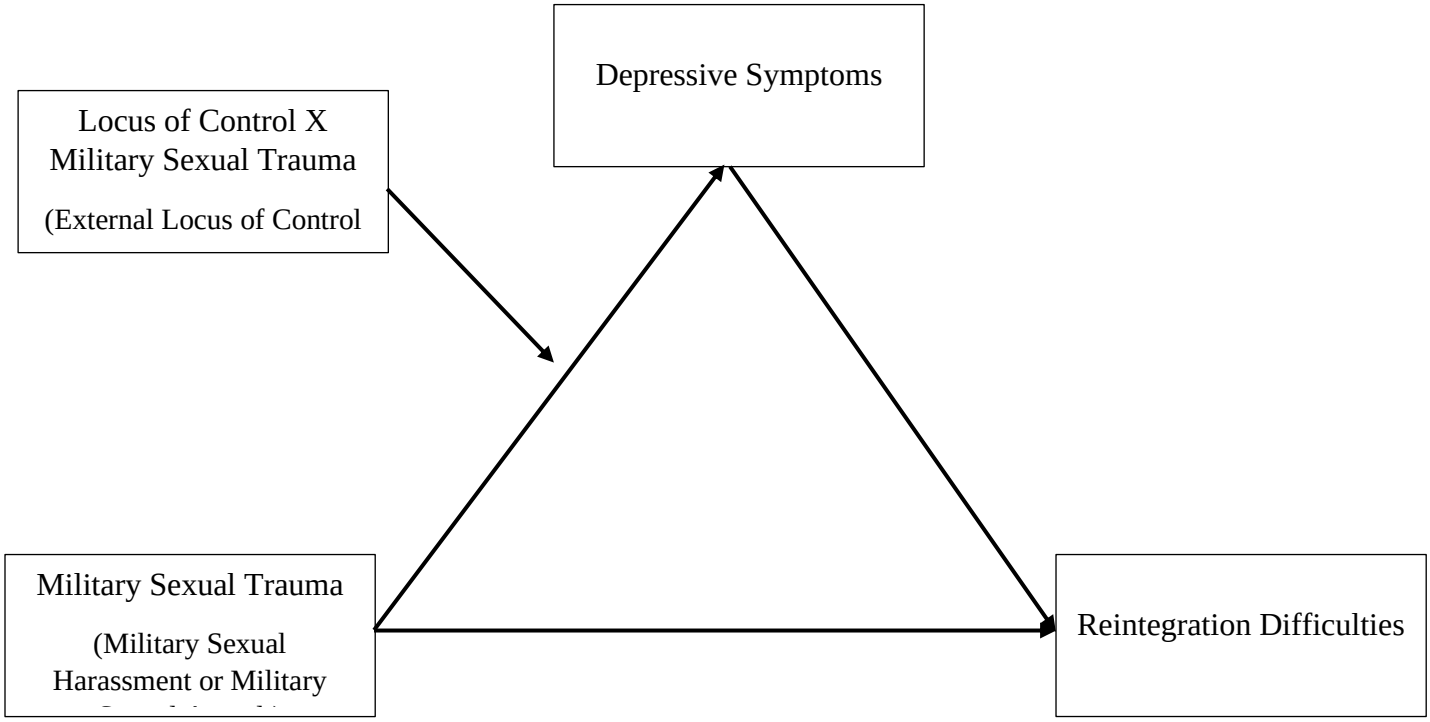

Figure 3. This figure demonstrates the conceptual model of Aim 4, which is the moderated mediated model. This demonstrates how locus of control was tested as a moderator of the association between military sexual trauma and depressive symptoms, and how depressive symptoms was hypothesized to mediate the association between military sexual trauma and reintegration difficulties. This figure excludes the covariates and does not show the two separate analyses for military sexual assault and military sexual harassment for simplicity.

CHAPTER II

METHOD

Participants and Recruitment

All participants were female veterans. Depending on the aim, the number of participants ranged from 243 to 228 participants. The average age was 52.1 (*SD* = 12.44) with the youngest being 21 and the oldest being 80. The average amount of years since their discharge was 19.7 years (*SD* = 11.81). The range was from less than one year to 53 years. Other sample demographic information such as education, ethnicity, marital status, and branches of the military can be found in Table 1. Eligibility criteria included that the participant was 18 years or older and were former military (i.e., veterans).

Participants were recruited through a variety of methods such as by an online psychology research pool in which the participants are enrolled in psychology courses, social media sites (e.g., Facebook), military listservs, snowball sampling from friends and/or family, flyers, both student and non-student veteran organizations, veteran organizations not associated with the participating university (e.g., American Legions, motorcycle clubs/associations, Veterans of Foreign Wars of the US), and Craigslist. Only 7 participants (3.1%) were recruited from the psychology research pool; information on how participants heard about the study was not collected. To ensure that potential student participants did not misrepresent themselves to receive research credit, two military screening questions were asked in the beginning of the study. The first question is, "What is the acronym for the locations where final physicals are taken prior to shipping off for basic training?" and the second question is, "What is the acronym for the generic term the military uses for various job fields?" These two screening questions have been shown to eliminate non-military members posing as military members to receive survey incentives (Lynn & Morgan, 2016).

Table 1

Sample Demographics

Characteristic	***N*(%)**
Education	
High School/GED	5(2.2)
Some College	56(24.6)
Associates	44(19.3)
Bachelors	55(24.1)
Masters	57(25.0)
Doctorate	11(4.8)
Ethnicity	
Black	11(4.8)
Caucasian	206(90.4)
Asian	3(1.3)
Hispanic	8(3.5)
Marital Status	
Single	19(8.3)
Married	131(57.5)
Separated	5(2.2)
Divorced	67(29.4)
Widowed	6(2.6)
Branches	
Air Force	46(20.2)
Air Force Reserves	5(2.2)
Army	97(42.5)
Army Reserves	26(11.4)
Coast Guard	17(7.5)
Marine Corps	17(7.5)
National Guard	23(10.1)
Navy	66(28.9)
Navy Reserves	10(4.4)
Branch not listed	2(0.9)

Note. Participants could select more than one branch.

Procedure

The survey was created using Qualtrics. Participants were given the survey link when recruited. When participants clicked on the link, there were questions determining eligibility (e.g., 18 years or older). After determining eligibility, participants read the notification statement describing the purpose of the study, information about their rights as participants, and contact information for the researchers. Prior to completing questionnaires, potential participants reviewed the notification statement. Participants then clicked “I read the notification statement” and “yes, I wish to participate” before they began the survey. There were separate consent forms for non-ODU student participants and ODU student participants. Participants who indicated they did not want to participate in the survey were directed to a screen and thanked for their time. Participants who agreed to participate completed an online survey about their reintegration experiences, mental health, and military sexual trauma experiences. Demographic questions were asked first; the rest of the measures were counterbalanced to try to limit the effect of priming. The survey took 20 minutes to complete. After completing the survey, all participants were given mental health resources for veterans. After the resources, ODU student participants were redirected to a separate website where they entered a unique identifier that enabled them to receive research credit through the SONA system. Non-ODU student participants did not receive compensation.

Measures

Military Sexual Trauma. Most studies have combined both questions to indicate military sexual trauma (Haskell et al., 2010; Katz et al., 2007; Kimerling et al., 2007; Maguen et al., 2010); however, I separated military sexual trauma into two variables, specifically military sexual harassment and military sexual assault. Therefore, to assess for military sexual harassment, I asked "While you were in the military did you receive any uninvited and unwanted

sexual attention such as touching, cornering, pressure for sexual favors, or inappropriate verbal remarks?" and to assess for military sexual assault, "While you were in the military did anyone ever use force or the threat of force to have sexual contact with you against your will?" with the response options of yes or no (Department of Veterans Affairs, 2010). Most of the sample reported military sexual harassment (*n* = 196, 86%), and nearly half of the participants reported military sexual assault (*n* = 101, 44.3%). The average amount of years since the most distressing military sexual harassment was 24.87 years ago (*SD* = 11.53), and 25.23 years ago (*SD* = 11.53) for the most distressing military sexual assault. Most reported that they have received mental health treatment for military sexual trauma (*n* = 53, 52.5%).

If the participant indicated "yes" to either, then they are administered a follow-on question, that is, "What was your relationship to this person(s)? Check all that apply." If the participant indicates yes to both questions, there received two follow-on questions asking their relationship to that person with the following response options and to check all that apply: Stranger, Friend or acquaintance, Relative, Dating partner/boyfriend/girlfriend, Spouse, Military coworker, Military supervisor, or other. The participants could pick as many perpetrators for both military sexual harassment and military sexual assault. The number and percentages of the indicated perpetrators are shown in Table 2. The largest category of perpetrators for military sexual harassment was military coworker (*n* = 144, 63.2%) and the largest category of perpetrators for military sexual assault was also military coworker (*n* = 52, 52.0%). It is important to recognize, that typical military sexual trauma policy is that any sexual harassment or sexual assault constitutes military sexual trauma while in the military, regardless of the perpetrator. It is also important to note that the VA (Department of Veterans Affairs, 2010) and other military providers that treat military sexual trauma do not typically ask the follow-on

questions on the perpetrator. For this reason, I included all participants who reported military sexual trauma regardless if she selected a non-military perpetrator (i.e., Stranger, friend or acquaintance, relative, non-military dating partner/boyfriend/girlfriend, spouse or other) as having experienced sexual harassment or sexual assault. Again, the key for the military is military sexual trauma is trauma that occurs during military service regardless of the perpetrator. However, to make military sexual trauma a cleaner variable, I conducted an exploratory analysis to determine if the relations between variables remain significant when examining military perpetrators (i.e., military supervisor or military coworker) versus a non-military provider.

Additionally, I controlled for sexual trauma that occurred after the military by asking the same two questions, but with the beginning stem sentence changing. So the question for military sexual harassment read, "After your departure from the military did you receive any uninvited and unwanted sexual attention such as touching, cornering, pressure for sexual favors, or inappropriate verbal remarks?" and the question for military sexual assault "After your departure from the military, did anyone ever use force or the threat of force to have sexual contact with you against your will?"). The majority did not experience sexual harassment after their departure from the military (n = 148, 64.9%). In addition, the majority did not experience sexual assault after their departure (n = 207, 90.8%).

Table 2
Military Sexual Trauma Characteristics

Characteristic	***N*(%)**
Military Sexual Harassment Perpetrators	
Stranger	28(12.3)
Friend/Acquaintance	55(24.1)
Relative	32(14.0)
Non-Military Dating Partner	3(1.3)
Spouse	4(1.8)
Military Coworker	144(63.2)
Military Supervisor	14(6.1)
Military Sexual Assault Perpetrators	
Stranger	9(9.0)
Friend/Acquaintance	17(17.0)
Relative	0(0.0)
Non-Military Dating Partner	0(0.0)
Spouse	3(3.0)
Military Coworker	52(52.0)
Military Supervisor	29(29.0)

Note. Participants could select more than one perpetrator.

Childhood Sexual Abuse. The *Childhood Experience of Care and Abuse Questionnaire (CECA-Q)* for unwanted sexual experience includes three items with three response items (i.e., yes, no, unsure; Smith et al., 2002). The summed score was a covariate in Aims 2 through 4. An example question includes, "When you were a child or teenager did you ever have any unwanted sexual experiences?" (Smith et al., 2002). Yes, and unsure were scored as a 1, whereas no was scored as a 0. If the participant indicated an affirmative response to any of the three questions, then the participant was given follow-up questions to determine the severity of the abuse. A little over the a third of the sample reported no child sexual abuse (n = 87, 38.2%) while the majority reported at least one type of child sexual abuse experience (n = 141, 61.8%). These questions are answered by yes or no, with yes indicating a score of 1, except for the first question which inquiries about the age the abuse started. An example follow-up question is, "Did it involve touching private parts of the other person's body?"

Reintegration Difficulties. The *Military to Civilian Questionnaire (M2C-Q)* has 16 items that were used to assess veterans' difficulty with interpersonal relationships (e.g., "Making new friends"), productivity at work and/or school (e.g., "Doing what you need to do for work or school?"), participation in community events (e.g., Taking part in community events or celebrations [for example, festivals, PTA meetings, religious or other activities]?), self-care (e.g., Taking care of your health [such as exercising, sleeping, bathing, eating well, taking medication as needed]?), participation in hobbies and relaxing activities (e.g., "Enjoying or making good use of free time?"), and sense of purpose (e.g., "Finding meaning or purpose in life?; Sayer et al., 2011). Sayer and colleagues (2011) found that the Cronbach's α was high (α = .95) for their sample of 745 of OIF/OEF veterans. It is important to note that the Cronbach's α was .92 among other studies using different samples of veterans (Beehler et al., 2017; Sayer et al., 2015). Some

of these items appear to measure activities of daily living. Similar to the self-care portion of the M2C-Q, activities of daily living items include bathing, housekeeping, taking prescribed medication regularly and consistently (Lawton & Brody, 1969). The measure of activities of daily living as a way to study the functioning of veterans is common (Singh et al., 2005). The M2C-Q has been significantly correlated with measurements that assess activities of daily living such as the Health-Related Quality of Life measure (Norman et al., 2015). The Health-Related Quality of Life measure includes questions about one's mental health, physical health, and how active they are (Zahran et al., 2005). This measure had an average score of 22.5 (*SD* = 14.74). In order to ensure an adequate sample size, I did not exclude participants; however, I conducted an exploratory analysis to compare the findings between only participants who have discharged within the past 6 years and the whole sample collected. The 6-year mark was chosen because Sayer et al. (2015) indicated six years was the average number of years their sample had with reintegration difficulties. However, variability in the time it takes veterans to transition is common.

Depressive Symptoms. The *Center for Epidemiological Studies Depression Scale (CESD-10)* contains 10 items that are used assess for depression symptoms in the past week (Andresen et al., 1994). An example item includes, “I felt depressed.” The response anchors for all items were 0 = *rarely or none of the time (less than one day)* to 3 = *most or all of the day (5-7 days)*. Andresen and colleagues (1994) found good predictive with the CESD-10 to the original CESD-20. This measure has been used with veterans past research (Battles et al., 2018; Hourani et al., 2012; Hourani et al., 2015). Bravo et al. (2016) found that alphas for CESD-10 ranged from .86 to .88 with a Navy sample which is considered acceptable internal consistency according to Webb et al. (2006). Andresen and colleagues (1994) found a strong correlation

between CESD-10 scores from baseline to 12 months follow up (r = .59). Most of the sample reported receiving mental health treatment for depression (n = 157, 68.9%). Despite receiving treatment, 135 participants (59.2%) met the cut off for depression on the CESD-10 by having a score of 10 or above (Andresen et al., 1994). Alpha for the present study was .93.

Locus of Control. Rotter's (1966) *Locus of Control Scale* (LOC) contains 29 paired statements. For each paired statement, the participant must choose the statement that best reflects themselves. One statement illustrates external locus of control and the other indicates a perception of internal locus of control. Example item includes, "As far as world affairs are concerned, most of us are the victims of forces we can neither understand, nor control" or "By taking an active part in political and social affairs the people can control world events". Locus of control is typically thought to be a continuous variable meaning that an individual should not be considered as someone with internal locus of control or external locus of control (Bolstad & Zinbarg, 1997). A higher score indicates external locus of control while a lower score indicates internal locus of control (Rotter, 1966). This scale has been tested with veterans and has indicated acceptable internal consistency with alpha coefficients ranging from .72 - .78 (Smith et al., 2018; Solomon et al., 1988). Alpha for the present study is similar to other studies (α = .76). This sample had an average score of 11.72 (SD = 4.09).

Combat Experience. Combat experience was originally planned to be controlled for as it has been associated with several components of reintegration such as with self-care. For example, those with higher frequency of combat experiences responded to treatment for posttraumatic stress disorder more slowly (Price et al., 2013). Combat experience was be measured by Deployment Risk and Resilience Inventory Combat Experiences scale which assesses the frequency in which common combat experiences occurred (e.g., IEDs, being shot at,

combat patrols; Vogt et al., 2013). Vogt and colleagues (2013) found that internal consistency for the combat experience scale was α = .91 in a sample of 1,046 OIF and OEF veterans indicating that all items are related and measuring a similar construct. Creech et al. (2016) found acceptable internal consistency (α = .85) in female veterans who took part in OEF and OIF. The internal consistency in my sample was also acceptable (α = .83). Combat exposure scores were considered as a covariate because they have been positively associated with postdeployment stress (e.g., job loss), which is related to reintegration and mental health problems such as posttraumatic stress disorder and alcohol misuse (Creech et al., 2016). Nearly half of the sample had been deployed (*n* = 110, 48.2%). Participants had an average summed score of 22.43 (*SD* = 7.17). This average combat exposure score is similar to what other research has found with female veterans (22.27, (*SD* = 8.94), Creech et al., 2016; 21.32 (*SD* = 5.60), Kearns et al., 2016).

Proposed Statistical Analyses. Power was calculated based on the model that included both moderation and mediation as it would require more power than a simple moderation model. According to Jackson (2003), the power analysis for a mediation model includes a 10:1 ratio indicating that each parameter estimated in the model required 10 participants. The current study has 20 parameters (i.e., [1] Military sexual trauma predicting reintegration, [2] military sexual trauma predicting depressive symptoms, [3] depressive symptoms predicting reintegration difficulties, [4] locus of control predicting reintegration difficulties, [5] the interaction of military sexual trauma and locus of control predicting reintegration, [6] the residual variance predicting endogenous variable of depressive symptoms, [7] the residual variance predicting the endogenous variable of reintegration, [8-14] the 6 covariates predicting reintegration difficulties, and [15-20] the 6 covariates predicting depressive symptoms). Based on the guidelines by Jackson (2003), the power analysis revealed that 190 participants are sufficient. Due to attrition

and potential for participants to fail attention check questions and data from those participants not included, I planned to collect data from 210 participants. See Figure 1 for a clearer depiction of how the parameters were calculated. To maximize the sample size, I tested if the moderated mediation results were identical among those who answered one, two, or three (all) attention items correctly. The plan was then to test each group, and if the results remain identical for every group, then I would not remove any participants. However, if the results are not identical, then I would remove the participants who differed and failed the attention check items.

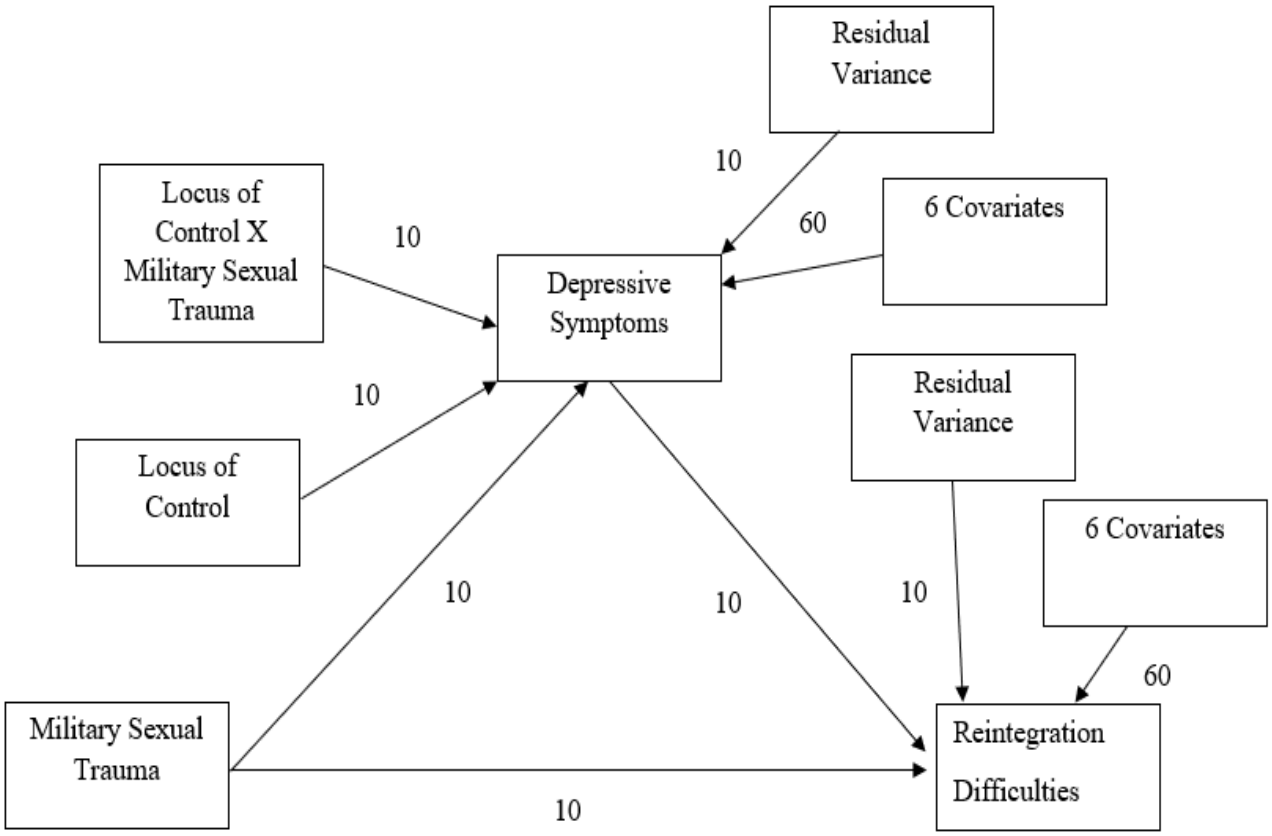

Figure 4. This figure demonstrates all the parameters and how the power analysis was conducted.

CHAPTER III

RESULTS

Missing data and outliers. Before analyses, missing data and outliers were addressed. The raw data had a sample size of 444. However, data from 107 participants were deleted for various reasons. Twenty participants were deleted who were not able to answer both military validity questions correctly. The military validity questions created by Lynn and Morgan (2016) were “What is the acronym for the locations where final physicals are taken prior to shipping off for basic training?” and "What is the acronym for the generic term the military uses for various job fields?" If participants wrote, “I don’t know” or “I don’t remember” for both questions, they were deleted. Data were also deleted from participants if they entered unacceptable answers for both questions. Examples of unacceptable responses include included, “Bootcamp,” “Recruitment Center,” “Basic,” “METS,” “Intake,” “Induction,” a year (e.g., 1981), or a location (e.g., Newark, NJ). Examples of what were considered unacceptable for the question asking about the acronym for the generic term the military uses for various job fields included the following, “AFAC,” “EOS,” “AIT,” “AFC,” “ATO,” “POC,” “AFI,” “Billit,” and job names (e.g., flight medic, flight nurse, nurse, seaman). Data were included from participants if they answered at least one of the two military validity questions correctly. In addition, I checked to see if the number of correctly answered attention checks impacted the scores on Military to Civilian Questionnaire, Center for Epidemiological Studies Depression Scale, and Locus of Control. Although there were no significant associations between the number of attention checks answered incorrectly and Military to Civilian Questionnaire scores and Center for Epidemiological Studies Depression Scale scores, there were significant associations with Locus of Control scores. Specifically, any missed attention checks (i.e., 1 missed attention check

question, 2 missed attention check questions, and missed all attention check questions) significantly correlated with Locus of Control scores. For this reason, I removed data from 40 participants who failed 1 or more attention checks. This decrease led to a total sample of 384 female veterans. PROCESS handles missing data by listwise paired deletion meaning if there are missing values for any of the variables, data for that participant is excluded from analysis. Listwise paired deletion resulted in a sample size that ranged from 228 to 243 depending on what aim was being examined.

Univariate outliers were examined via boxplots and indicated by an asterisk by SPSS meaning which denotes the extreme values more than 3 standard deviations from the mean. There were no identified outliers. Multivariate outliers were assessed using Cook's D, Mahalanobis distance and studentized deleted residuals. There were no outliers for Center for Epidemiological Studies Depression Scale scores, Locus of Control scores, and Military to Civilian Questionnaire scores.

Statistical assumptions. The data were inspected for scores on the Center for Epidemiological Studies Depression Scale, Locus of Control, and Military to Civilian Questionnaire. Since this is a multiple linear regression due to the mediation model (i.e., two independent variables predicting one dependent variable), I checked for multicollinearity using VIF and tolerance. The rule of thumb is that an VIF above 10 and a tolerance below 0.2 indicates multicollinearity (O'Brien, 2007). No variable scores had a VIF above 1.5 and the lowest tolerance value was .73 for Center for Epidemiological Studies Depression Scale scores. To check for the first assumption for regression, that is, whether the relationship between the independent and dependent variables was linear, I conducted scatterplots for each of the predictors. Because the two military sexual trauma questions were scored as dichotomous, I did

not used a scatterplot to examine its relationship with the predictors. The scores for the Center for Epidemiological Studies Depression Scale had a linear relationship with Military to Civilian Questionnaire scores. Locus of Control scores also had a linear relationship with Military to Civilian Questionnaire scores. The third assumption is that there is no error in measuring the variables of interest. The questionnaires have been widely used and have demonstrated acceptable alphas in previous research; however, I tested Cronbach's alpha on Center for Epidemiological Studies Depression Scale ($\alpha = .93$), Military to Civilian Questionnaire ($\alpha = .92$), and Locus of Control ($\alpha = .76$) to see if these scores had good reliability with my specific sample. Since alphas were above .70, reliability was acceptable (Cortina, 1993). The fourth assumption is that there is homoskedacity or that the residuals have constant variance. To check for this assumption, I used the scatterplot of the mean score of reintegration difficulties and the predicted score. The scatterplot appeared random and spread out with no funnel shape, which would have indicated homoscedasticty. The fifth assumption is that the residuals are independent, which was tested using Durbin-Watson which has values from 0-4 with problematic values being below 1 and above 3 (Field, 2009). The Durbin-Watson value was 1.83 which indicates this assumption was not violated. The last assumption is that the residuals must be normally distributed which is tested by normal P-P plots. The points seem followed the line with only a few points slightly off the line, so the observed standardized residuals were normally distributed.

Descriptive statistics and covariate decisions. The bivariate correlations are shown in Table 3. I examined more variables than what is shown to determine whether a variable should be included as a covariate. I decided to include whether participants had been deployed or not (0 = no, 1 = yes) rather than combat exposure for two reasons. One reason for this decision was that

PROCESS only utilizes scores for those who have served on a deployment which would have reduced my sample size from 228 to 110. A second reason for not including combat exposure as a covariate was that deployment and combat exposure scores were correlated with the same variables (e.g., reintegration) suggesting redundancy in their associations with the variables of interest.

Table 3

Bivariate Correlations and Descriptive Statistics Among Study Variables

	1	2	3	4	5	6	7	8	9	10	M	*SD*
1. Military Sexual Harassment	---	.28**	.27**	.25**	.27**	-.05	.02	.14*	.16**	.14*	.86	.35
2. Military Sexual Assault		---	.36**	.40**	.24**	.05	-.03	.22**	.14*	.20**	.44	.50
3. Reintegration Difficulties			---	.83**	.45**	-.22**	.12	.17**	.26**	.25**	22.54	14.74
4. Depressive Symptoms				---	.44**	-.14*	-.00	.22**	.23**	.25**	12.36	7.97
5. Locus of Control					---	-.13	.02	.11	.16*	.17**	11.73	4.09
6. Years Since Discharge						---	-.38**	-.18**	.15*	.09	19.7	11.81
7. Deployed							---	-.12*	-.08	-.08	.48	.50
8. Child Sexual Abuse								---	.14*	.12	5.26	4.17
9. Sexual Harassment A.S.[1]									---	.40**	.35	.48
10. Sexual Assault A.S.[1]										---	.09	.29

Note. [1]A.S. = after service. *$p < .05$. **$p < .01$.

Statistical analyses for Aim 1. Aim 1 was to test if participants with military sexual trauma would report more reintegration difficulties**.** I used independent *t*-tests since I have one variable that has two levels (i.e., military sexual trauma; no military sexual trauma) and a continuous dependent variable. I created two dummy codes for the independent variable of military sexual trauma (i.e., one for sexual assault and one for sexual harassment) into a dichotomous code to create a reference group. A code of "1" indicated that military sexual assault or military sexual harassment was endorsed; a score of "0" indicated the participant reported no military sexual harassment or military sexual assault. I ran two separate independent *t*-tests with military sexual assault and military sexual harassment as the independent variables. Covariates were not controlled.

I ran an independent samples *t*-test which had a sample size of 243 with only 33 participants indicating they have never been sexually harassed during their service in the military. Given the low number of women who reported no sexual harassment, caution should be used when interpreting the results. The Levene's test was significant ($F = 7.02$, $p = .009$); therefore, the degrees of freedom were adjusted from 241 to 54.75 and equal variances were not assumed. There was a significant difference between those who reported military sexual harassment and those who did not on reintegration difficulties, $t(54.75) = -5.58$, $p < .001$, with those who reported sexual harassment indicating more reintegration difficulties, ($M = 24.20$, $SD = 14.67$) compared to those who did not report sexual harassment ($M = 12.71$, $SD = 10.31$).

For military sexual assault, the cell sizes were more similar, in that 134 participants indicated they were not sexually assaulted while on active duty, whereas 108 participants reported that they were sexual assaulted while in the military. The Levene's test was not significant; therefore, equal variances were assumed, $F = 0.32$, $p = .570$. There was a significant

difference between those who endorsed sexual assault and those who did not, $t(240) = -5.90$, $p < .001$. Those who endorsed military sexual assault reported more reintegration difficulty ($M = 28.51$, $SD = 14.51$) compared to those who did not report endorse military sexual trauma ($M = 18.04$, $SD = 13.08$).

Statistical analyses for Aim 2. Aim 2 examined for possible moderation effects of locus of control on the relation between military sexual trauma and reintegration difficulties scores. I used the macro program, PROCESS (Version 3.0), using model 1 on SPSS 26. The sample size was 230. Two models were run. The first examined sexual harassment and the second sexual assault. For both analyses, the following variables were included as covariates: deployment, sexual assault and sexual harassment after service, years since discharge, and child sexual abuse. When military sexual harassment was the predictor, military sexual assault was included as a covariate and vice versa. All estimates were bootstrapped with 10,000 bootstrap samples. Locus of control scores were standardized by using Z-scores.

For sexual harassment as the predictor, the overall model was significant, $F(9, 220) = 14.92$, $p < .001$, $R^2 = .38$. However, military sexual harassment did not significantly predict reintegration. Locus of control was significantly and positively associated with reintegration such that the higher the participant score on the locus of control continuum, indicating more external locus of control, the more reintegration difficulties reported.

The following covariates were significant: sexual assault after service, $b = 6.80$ (boot $SE = 2.82$), 95% CI (1.30, 12.49); sexual harassment after service, $b = 5.05$ (boot $SE = 1.85$), 95% CI(1.43, 8.66); years since discharge, $b = -0.23$ (boot $SE = 0.07$), 95% CI (-0.38, -0.08); deployment, $b = 3.72$ (boot $SE = 1.81$), 95% CI (0.13, 7.19); and military sexual assault, $b = 6.32$

(boot *SE* = 1.74), 95% CI (2.87, 9.67). Child sexual abuse was not significant, *b* = 0.22 (boot *SE* = 0.16), 95% CI (-0.09, 0.52).

For military sexual assault, the overall model was significant, $F(9, 220) = 14.92$, $p < .001$, $R^2 = .38$. Military sexual assault and locus of control had positive significant main effects on reintegration difficulties. These results demonstrated that female veterans who report being sexually assaulted while in the military reported more reintegration difficulty. Additionally, higher external locus of control scores were positively associated with reintegration difficulty. The moderation effect was not significant.

All covariates except child abuse scores, *b* = 0.23 (boot *SE* = 0.15), 95% CI (-0.06, 0.53), were significant. Specifically, the following were significant covariates: sexual assault after service, *b* = 7.36 (boot *SE* = 2.94), 95% CI (1.73, 13.37); sexual harassment after service, *b* = 5.00 (boot *SE* = 1.86), 95% CI(1.26, 8.64); years since discharge, *b* = -0.24 (boot *SE* = 0.08), 95% CI (-0.39, -0.09); deployment, *b* = 3.83 (boot *SE* = 0.08), 95% CI (0.13, 7.19); and military sexual harassment, *b* = 3.14 (boot *SE* = 2.003), 95% CI (-0.81, 7.13). See Figure 5 for the statistical model of Aim 2 and Table 4 for all Aim 2 results.

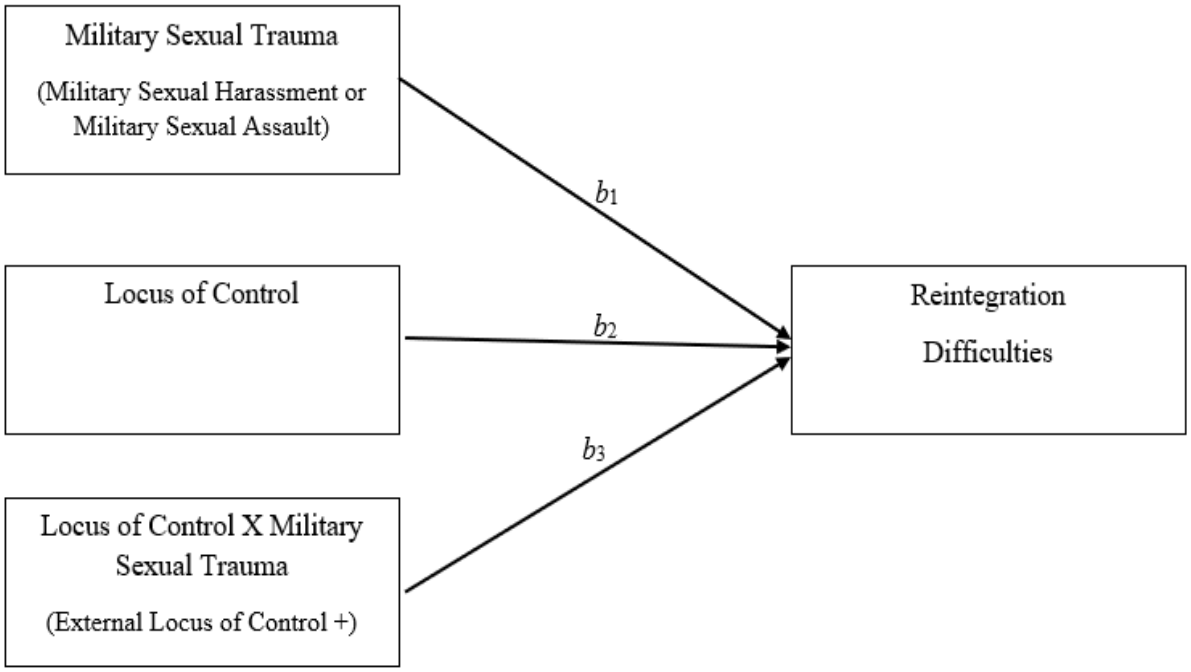

Figure 5. This figure demonstrates the statistical diagram for Aim 2, which examines the moderation effect of locus of control on the relation between military sexual trauma and reintegration. Covariates were excluded from the figure for clarity. Military sexual harassment and military sexual trauma were examined in separate models. The purpose of the figure is merely to give the reader a visual depiction of the model.

Table 4
Aim 2 Results for Both Military Sexual Harassment and Military Sexual Assault

	B	Boot SE	95% CI
Path b_1			
MSH→ Reintegration Difficulties	3.83	2.06	-0.34, 7.83
MSA→ Reintegration Difficulties	**6.48**	**1.73**	**2.99, 9.81**
Path b_2			
Locus of Control w/ MSH	**3.10**	**1.45**	**0.03, 5.78**
Locus of Control w/ MSA	**4.36**	**0.98**	**2.36, 6.20**
Interaction Effects/Path b_3			
MSH X Locus of Control	1.13	1.81	-2.35, 4.80
MSA X Locus of Control	-0.91	1.75	-4.39, 2.54

Note. MSH = Military Sexual Harassment; MSA = Military Sexual Assault. Sexual assault after service, sexual harassment after service, years since discharge, child sexual abuse, and deployment, were controlled for in both models. MSH and MSA were controlled for in their appropriate models. Significant paths in bold for emphasis. Estimates were bootstrapped with 10,000 bootstrap samples. Boot SE represents the standard error for the bootstrapped sample.

Statistical analyses for Aim 3. Aim 3 was to examine for possible mediation effects of depressive symptoms on the relation between military sexual trauma and reintegration difficulties scores. I used the macro program, PROCESS, using model 4 on SPSS 26. The sample size was 233. All estimates were bootstrapped with 10,000 bootstrap samples. The covariates used for this analysis were military sexual assault and military sexual harassment as appropriate, deployment, sexual assault and sexual harassment after service, years since discharge, and child sexual abuse scores. The overall model was significant, $F(7, 225) = 11.08$, $p < .001$, $R^2 = .26$. There was a significant main effect of military sexual harassment on depressive symptoms scores, but the main effect of military sexual harassment on reintegration difficulties scores was not significant. Depressive symptoms positively predicted reintegration difficulties. There were significant indirect effects (i.e., mediation effects). See Figure 4 and Table 5 for the results of Aim 3.

Years since discharge was the only significant covariate for both depressive symptoms scores, $b = -0.11$ (boot $SE = 0.04$), 95% CI(-0,19, -0.02) and reintegration difficulties scores, $b = -0.11$ (boot $SE = 0.05$), 95% CI(-0.21, -0.02). Deployment, sexual assault after service, and sexual harassment after service did not significantly predict depressive symptoms scores. Only child sexual abuse scores, $b = 0.18$ (boot $SE = 0.08$), 95% CI(0.03, 0.34), and military sexual assault scores, $b = 5.20$ (boot $SE = 0.99$), 95% CI(3.25, 7.10), significantly predicted depressive symptoms scores. Child sexual abuse, sexual assault after service, and military sexual assault scores did not significantly predict reintegration difficulties scores. Sexual harassment after service, $b = 5.20$ (boot $SE = 0.99$), 95% CI(3.25, 7.10), and deployment, $b = 5.20$ (boot $SE = 0.99$), 95% CI(3.25, 7.10), were significantly positively associated with reintegration difficulties scores.

For the mediation model for military sexual assault, the overall model was significant, $F(7, 225) = 11.08$, $p < .001$, $R^2 = .26$. Military sexual assault had a significant main effect for depressive symptoms scores but not for reintegration difficulties scores. Depressive symptoms scores had a significant association with reintegration difficulties scores. There was a significant indirect effect (i.e., mediation effect). Covariates maintained their same associations with depressive symptoms scores and reintegration difficulties scores as in the model in which sexual harassment was the predictor. See Figure 6 and Table 5 for the results of Aim 3.

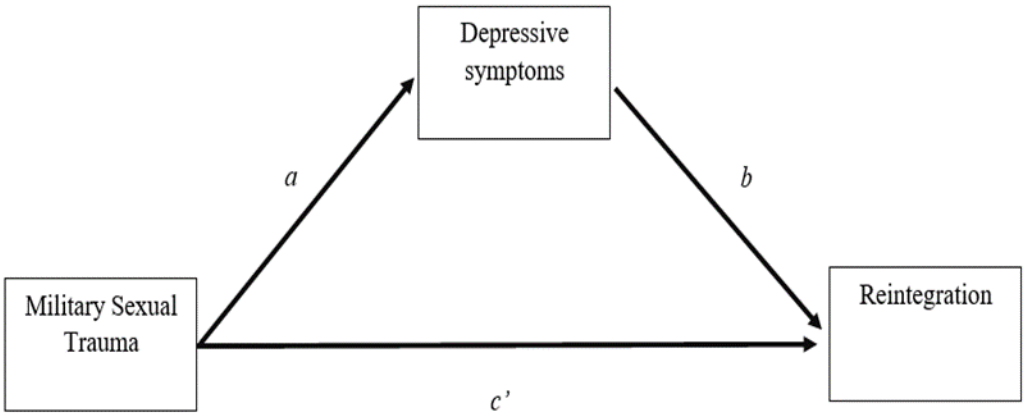

Figure 6. This figure demonstrates the statistical and conceptual model for Aim 3, which is the mediated model. That is, this figure reflects the hypothesis that depressive symptoms scores would mediate the relation between military sexual trauma and reintegration difficulties scores. This figure excludes the covariates and for simplicity, does not show the two separate analyses for military sexual assault and military sexual harassment.

Table 5
Aim 3 Results for both Military Sexual Harassment and Military Sexual Assault

	B	Boot SE	95% CI
Path *a*			
MSH→ Depressive Symptoms	**2.66**	**1.24**	**0.23, 5.12**
MSA→ Depressive Symptoms	**5.20**	**0.99**	**3.24, 7.13**
Path *b*			
Depressive Symptoms → Reintegration Difficulties	**1.40**	**0.07**	**1.26, 1.53**
Path *c'*			
MSH → Reintegration Difficulties	1.90	1.37	-0.79, 4.60
MSA → Reintegration Difficulties	1.10	1.17	-1.15, 3.40
Indirect effects			
MSH → Reintegration Difficulties	**3.72**	**1.73**	**0.33, 7.14**
MSA → Reintegration Difficulties	**7.28**	**1.48**	**4.41, 10.20**

Note. MSH = Military Sexual Harassment; MSA = Military Sexual Assault. Sexual assault after service, sexual harassment after service, years since discharge, child sexual abuse, and deployment, were controlled for in both models. MSH and MSA were controlled for in their appropriate models. Significant paths in bold for emphasis. Estimates were bootstrapped with 10,000 bootstrap samples. Boot SE represents the standard error for the bootstrapped sample.

Statistical analyses for Aim 4. Aim 4 was to examine for a possible moderated mediation effect. As significant moderated mediation model would mean that the mediation effects would change depending on values of the moderator (Muller et al., 2005). See Figure 7 for the figure of the moderated mediation model. Hayes (2015) states that a moderated mediation model should only be conducted if the moderator has been found to at least significantly moderate one of the paths; therefore, I ran two moderation analyses on 228 participants with military sexual assault and military sexual harassment as independent variables, depressive symptoms scores as the dependent variable, locus of control scores as the moderator, and the with the significant covariates included in previous analyses (i.e., military sexual assault and military sexual harassment deployment, sexual assault and sexual harassment after service, years since discharge, and child sexual abuse scores). Locus of control scores were transformed to Z scores; the estimates were bootstrapped with 10,000 bootstrap samples. The overall model was significant, $F(9, 218) = 12.16$, $p < .001$, $R^2 = .33$ with military sexual harassment as the predictor. There were no significant moderation effects with military sexual harassment as the independent variable, $b = 0.24$ (boot $SE = 1.05$), 95% CI (-1.71, 2.37). Although military sexual harassment was directly associated with depressive symptoms scores in Aim 3, when locus of control scores were included as a variable, military sexual harassment was no longer significantly associated with depressive symptoms scores.

The overall model was significant when military sexual assault was the predictor, $F(9, 218) = 14.92$, $p < .001$, $R^2 = .38$. However, there was no significant moderation effects with military sexual assault as the independent variable, $b = -0.32$ (boot $SE = 0.95$), 95% CI (-2.17, 1.56) either. Child sexual abuse scores, $b = 0.16$, (boot $SE = 0.08$), 95% CI (0.01, 0.32), and years since discharge, $b = -.08$, (boot $SE = 0.04$), 95% CI (-0.16, -0.0006), were the only

significant predictors of depressive symptoms in the model with military sexual harassment as the predictor. When military sexual assault was the predictor, only child sexual abuse scores, b = 0.16, (boot SE = 0.08), 95% CI (0.01, 0.32) were significantly associated with depressive symptoms scores. See Figure 8 and Table 6.

I ran a final moderation model (i.e., model 1 on PROCESS) on 228 participants with depressive symptoms as the independent variable, reintegration difficulties as the dependent variable, locus of control as the moderator, and with the significant covariates included in previous analyses (i.e., military sexual assault and military sexual harassment deployment, sexual assault and sexual harassment after service, years since discharge, and child sexual abuse). See Figure 9 and Table 7. Locus of control was standardized by Z scores, and the estimates were bootstrapped with 10,000 bootstrap samples. The overall model was significant, $F(10, 217) = 58.40$, $p < .001$, $R^2 = .73$. There were no significant moderation effects, b = -0.004 (boot SE = 0.05), 95% CI (-0.11, 0.10). Depressive symptoms significantly predicted reintegration difficulties, b = 1.35 (boot SE = 0.08), 95% CI (1.20, 1.50). Locus of control did not significantly predict reintegration difficulties, b = 0.89 (boot SE = 0.08), 95% CI (-0.88, 2.65). Significant covariates included deployment, b = 3.71 (boot SE = 1.28), 95% CI (1.23, 6.23), years since discharge, b = -0.12 (boot SE = 0.05), 95% CI (-0.22, -0.01), and sexual harassment after service, b = -2.65 (boot SE = 1.30), 95% CI (0.19, 5.22). Since there were no significant moderation effects as determined by the three moderation analyses discussed above and the non-significant moderation effects found in Aim 2, I did not run the moderation mediation model.

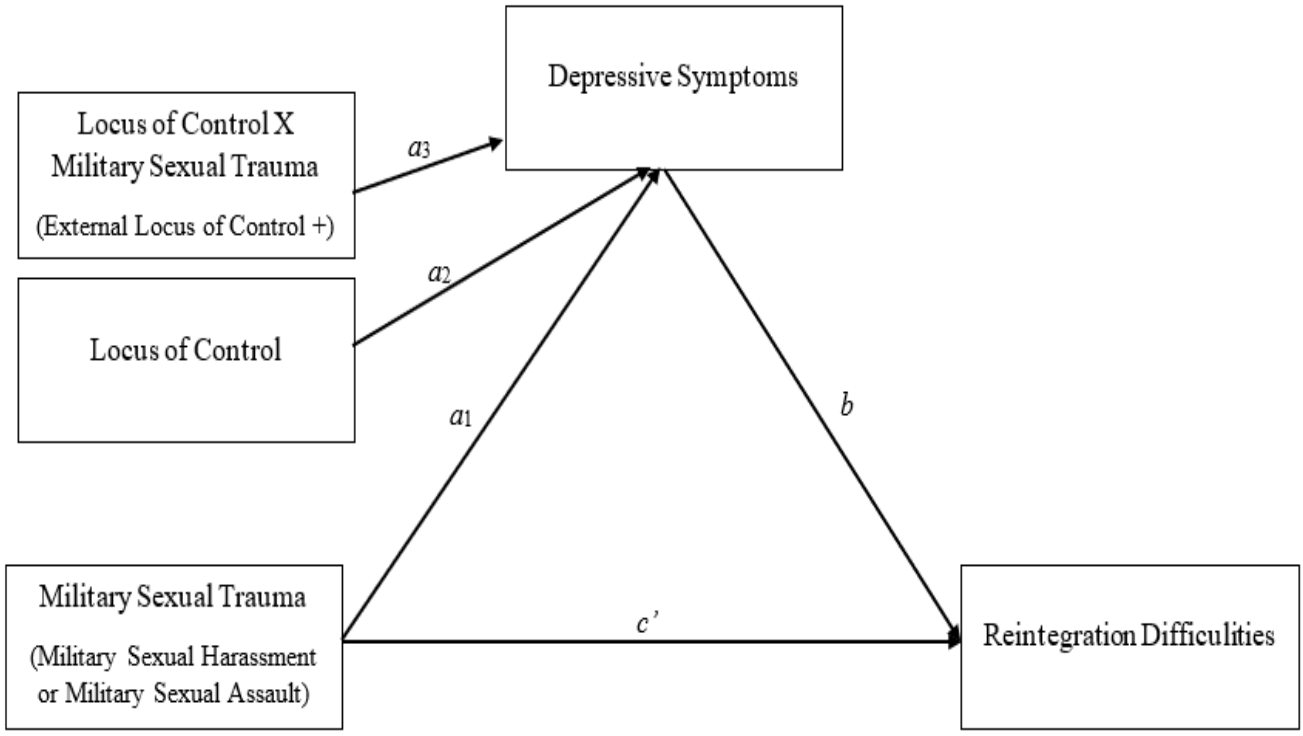

Figure 7. This figure demonstrates the statistical diagram of Aim 4, which is the moderated mediated model. This figure demonstrates how locus of control would have been tested as a possible moderator of the association between military sexual trauma and depressive symptoms, and how depressive symptoms would have been tested as a mediator of the relation between military sexual trauma and reintegration. For simplicity, this figure excludes the covariates and does not show the two separate analyses for military sexual assault and military sexual harassment.

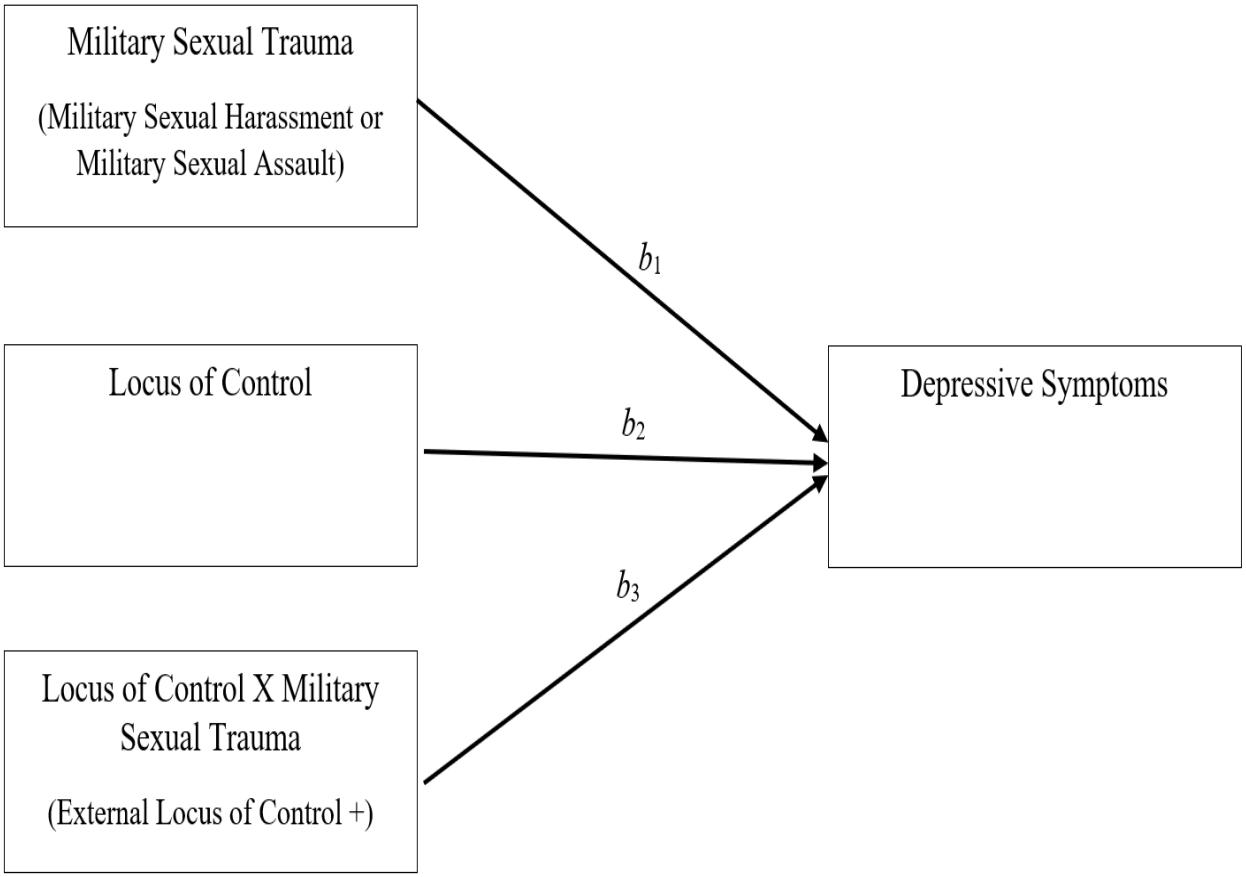

Figure 8. This figure demonstrates the statistical diagram for the preliminary analyses for Aim 4, which examines the moderation effect of locus of control scores on the relation between military sexual trauma and depressive symptoms scores. It excludes the covariates included in the model. Military sexual harassment and military sexual trauma were examined in separate models. The purpose of the figure is merely to give the reader a visual depiction of the model.

Table 6

Aim 4 Simple Moderation Effects on Depressive Symptoms for Both Military Sexual Harassment and Military Sexual Assault

	B	Boot SE	95% CI
Path b_1			
MSH→ Depressive Symptoms	1.48	1.15	(-0.74, 3.75)
MSA→ Depressive Symptoms	**4.27**	**1.01**	**(2.26, 6.26)**
Path b_2			
Locus of Control w/ MSH	**2.09**	**0.88**	**(0.23, 3.69)**
Locus of Control w/ MSA	**2.40**	**0.59**	**(1.23, 3.51)**
Interaction Effects/Path b_3			
MSH X Locus of Control	0.24	1.05	(1.71, 2.37)
MSA X Locus of Control	-0.32	0.95	(-2.17, 1.56)

Note. MSH = Military Sexual Harassment; MSA = Military Sexual Assault. Sexual assault after service, sexual harassment after service, years since discharge, child sexual abuse, and deployment, were controlled for in both models. MSH and MSA were controlled for in their appropriate models. Significant paths in bold for emphasis. Estimates were bootstrapped with 10,000 bootstrap samples. Boot SE represents the standard error for the bootstrapped sample.

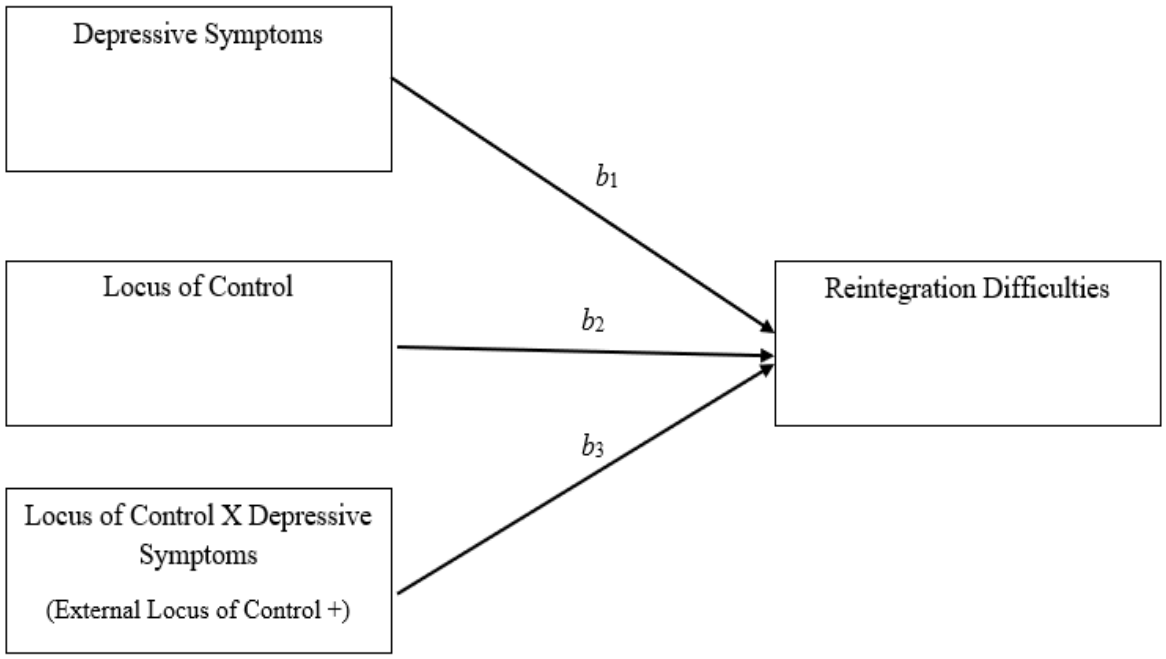

Figure 9. This figure demonstrates the statistical diagram for the preliminary analyses for Aim 4, which examines the moderation effect of locus of control scores on the relation between depressive symptoms scores and reintegration difficulties scores. It excludes the covariates included in the model. The purpose of the figure is merely to give the reader a visual depiction of the model.

Table 7
Aim 4 Simple Moderation Effects on Reintegration for Both Military Sexual Harassment and Military Sexual Assault

	B	Boot SE	95% CI
Path b_1			
Depressive Symptoms	**1.35**	**0.08**	**1.19, 1.50**
Path b_2			
Locus of Control	0.88	0.90	-0.88, 2.65
Interaction Effects/Path b_3			
Depressive Symptoms X Locus of Control	-.000	0.05	-0.11, 0.10

Note. Sexual assault after service, sexual harassment after service, years since discharge, child sexual abuse, military sexual assault, military sexual harassment, and deployment were controlled for in both models. Significant paths in bold for emphasis. Estimates were bootstrapped with 10,000 bootstrap samples. Boot SE represents the standard error for the bootstrapped sample.

Exploratory analyses for type of perpetrator and reintegration difficulties. The following exploratory analyses were used to determine if there was a difference on reintegration difficulties depending on the perpetrator of military sexual trauma. Therefore, to make the most succinct and cleanest variables, I conducted the analyses on those who had been sexually harassed by military members only (M = 22.8, SD = 14.87, n = 131) and those who had been sexually harassed by non-military members only in another group (M = 26.16, SD = 13.33, n = 16). Data from those who had been sexually harassed by both (M = 26.45, SD = 14.41, n = 61) or not sexually harassed at all (M = 12.80, SD = 10.47, n = 32) were excluded from these analyses. The cell sizes were uneven as most participants reported military members (i.e., military coworker, military supervisor, or both) as the perpetrators. Given the unequal cell sizes, caution should be used when interpreting the results. The Levene's test was not significant (F = 1.04, p = .860) indicating that equal variances can be assumed. There was not a significant difference between those who reported military sexual harassment by military members and those who reported sexual harassment from non-military individuals only on reintegration difficulties, $t(146) = 0.86$, p =.391.

As with the analyses above, military sexual assault was split into the cleanest variables which meant one group had military sexual assault by military members only (M = 29.51, SD = 13.63, n = 72) and the other group reported military sexual assault by non-military perpetrators (M = 23.52, SD = 18.54, n = 21). Data from those who had been sexually assaulted by both non-military and military perpetrators (M = 30.17, SD = 12.88, n = 8), and those who reported no military sexual assault (M = 18.68, SD = 13.29, n = 139) were excluded from analyses. Again, given the unequal cell sizes, caution should be used when interpreting the results. The Levene's test was significant (F = 5.73, p = .019) indicating that equal variances cannot be assumed;

therefore, the degrees of freedom were adjusted from 91 to 26.62. There was not a significant difference between those who reported military sexual harassment by military members and those who reported sexual harassment from non-military individuals on reintegration difficulties scores, $t(26.52) = -1.38$, $p = .180$. Therefore, it does not appear, based on this small sample, that type of perpetrator is associated with reports of reintegration difficulties.

Exploratory analyses for length of time since discharge. Sayer et al. (2015) suggested that the average time for veterans to successfully reintegrate is six years (Sayer et al., 2015). For this reason, exploratory analyses were planned to examine how length of time since discharge impacted the aims, however, only 35 participants had been discharged in the previous six years, which would result in limited power to test and potentially lead to a type II error. For this reason, exploratory analyses with length of time since discharge were not conducted.

Exploratory analyses for time since most distressing military sexual trauma event. A possible variable that could have a significant effect on the outcomes was length of time since the worst military sexual assault and military sexual harassment. Therefore, I conducted two multiple regressions for time since most distressing military sexual assault and most distressing military sexual harassment on reintegration difficulties and depressive symptoms. For reintegration difficulties, the overall model was not significant, $F(2, 92) = 2.69$, $p = .073$, $R^2 = .05$. Time since most distressing military sexual harassment event was not significantly associated with reintegration difficulties, $B = 0.41$, $t(92) = 0.70$, $p = .489$. In addition, time since most distressing military sexual assault event significantly associated with reintegration difficulties, $B = -0.68$, $t(92) = -1.16$, $p = .248$. For depressive symptoms, the overall model was not significant, $F(2, 92) = 2.23$, $p = .114$, $R^2 = .05$. Time since most distressing military sexual harassment event was not significantly associated with depressive symptoms, $B = -0.32$, $t(92) = -$

0.10, p = .919, and time since most distressing sexual assault event was not significantly associated with depressive symptoms, B = -0.11, t(92) = -0.36, p = .718. Further, I conducted a multiple regression with locus of control as the outcome variable. The overall model was not significant, F(2, 92) =2.43, p = .094, R^2 = .05. Neither time since most distressing military sexual harassment, B = 0.10, t(92) = 0.65, p = .520, nor time since most distressing military sexual assault, B = -0.16, t(92) = -1.09, p = .278, was significantly associated with locus of control.

CHAPTER IV

DISCUSSION

The current study's purpose was to investigate the associations of depressive symptoms and military sexual trauma on reintegration difficulty, and the role that locus of control may have with those relations. It was predicted that those who report more military sexual trauma would also report more reintegration difficulty compared to those who did not endorse military sexual trauma. Additionally, it was predicted that those who endorsed military sexual trauma and have higher internal locus of control would report more reintegration difficulties than those who are lower on internal local of control, that is, have higher external locus of control. Further, it was expected that depressive symptoms would mediate the relation between military sexual trauma and reintegration difficulties. Finally, it was predicted that higher external locus of control would serve to buffer the association between military sexual trauma, depressive symptoms, and reintegration.

Aim 1: Military Sexual Trauma and Reintegration Difficulties

The first aim looked at the differences between those who endorsed and did not endorse military sexual trauma on reintegration difficulties. It was theorized that military sexual trauma may impact reintegration because the homecoming theory suggests that reintegration is difficult due to military sexual trauma impacting how individuals see themselves and the world causing tension/conflict with loved ones who expect the female veteran to act the same as before (Schuetz, 1945). The world assumptions theory proposed by Janoff-Bulman (1989) adds to this theory by explaining how the perspective of the individual may change due to the military sexual trauma making it difficult to find good in the world, others, and maybe even in themselves. Qualitative research suggests that trauma, such as military sexual trauma, may result in

reintegration difficulties (Mattocks et al., 2012). For example, Leslie and Koblinsky (2017) found that female veterans reported that they struggled with role disruption in the family and missing children's development/growth and feared to share with others because of the risk of burdening others. Hawkins and Crowe (2018) found female veterans who had been exposed to physical or psychological injury, such as military sexual trauma, reported difficulties trusting others and poor access to recreation and health services. Quantitative research also suggests that military sexual trauma impacts reintegration because military sexual trauma, sexual assault, and sexual harassment have been shown to impact interpersonal relationships, which are central to reintegration (Crome, & McCabe, 1995; Katz et al., 2007; Katz et al., 2010; Walker et al., 2005). Quantitative research also suggests that military sexual trauma may impact female veterans ability to work (Katz et al., 2010; Skinner et al., 2000; Willness et al., 2007) and the ability to maintain a home/domestic life duties (Brignone et al., 2016; Pavao et al., 2013). Therefore, it was predicted that military sexual trauma would be significantly associated with reintegration difficulties with those endorsing military sexual harassment or military sexual assault having more reintegration difficulties than those who did not report such instances.

The results indicated that both military sexual harassment and military sexual assault were significantly associated with more reintegration difficulty. This result shows the importance of taking military sexual trauma seriously at the time of the event as military sexual trauma is associated with reintegration difficulties years after military service. In fact, on average, participants had ended their military service 19.7 years earlier. Nevertheless, women who endorsed military sexual trauma reported more reintegration difficulties.

Allowing for better treatment of women who choose to make a report on their military sexual trauma may reduce the number of perpetrators to habitually harass or sexually assault

other women, and therefore, decrease the reintegration difficulties experienced. In the present sample, only 15.4% (n = 35) made an unrestricted or restricted report to the military about sexual assault and 30.7% (n = 70) made unrestricted or restricted report to the military about sexual harassment. The low formal reporting of sexual assaults to the military may be due to the obstacles these women face when trying to report. Campbell and Raja (2005) found that out of their female veteran sample who had experienced sexual assault, 65% had been denied the ability to do a report and 70% were told it was not severe enough to report. In addition, Morral et al. (2015) found that over a quarter of their sample who made a report of sexual assault alleged retaliation in doing so by retaliation of punishments, social retaliation, professional retaliation, and undesirable administrative actions. In fact, concerns about retaliation prevented 15% of their sample from making a formal report of sexual assault (Morral et al., 2015). Morral et al. (2015) found that more female service members made formal reports on sexual harassment (i.e., 46%), but there was still a considerable percentage that felt they could not make formal reports. For example, 30% did not make a formal report because of concerns of retaliation, and 43% did not believe that any action would be taken (Morral et al., 2015). If making formal reports to the military about sexual harassment and sexual assault was dealt with in a more respectful, appropriate, non-judgmental, consequence-free, and trauma-educated way, perhaps more military members would make formal reports. These reports could have detrimental effects on perpetrators, and hopefully reduce the instances of sexual assault and sexual harassment. The results show that the impact of military sexual trauma affects female veterans long after their service and affect their ability to transition into civilian life.

In addition, the results demonstrate the importance of giving survivors of military sexual trauma reintegration information and resources. Although a program designed to assist exiting

service members with health, finances, and career-related aspects called Transition Assistance Program (TAP) has existed since 1991, it only became mandatory to take the courses in 2011 (Congressional Research Service, 2018). Given that the average time since discharge for this sample was 19.7 years, few women were mandated to go through this program. Further, many service members have complained that TAP was given too late to them, possibly decreasing the effectiveness of TAP. For this reason, during the 2019 fiscal year it was mandated that service members begin TAP at least 365 days prior to discharge (The U.S. Department of Veteran Affairs Office of Transition and Economic Development, 2020). Although finding a significant association between military sexual trauma and reintegration is important and demonstrates the importance of preventing military sexual trauma and providing good reintegration programs, it does not give much information on how military sexual trauma impacts reintegration nor if there are any factors that may buffer this association.

Aim 2: Military Sexual Trauma and the Moderation of Locus of Control

Aim 2 examined the moderation effects of locus of control on the association between military sexual trauma and reintegration. It was predicted that internal locus of control would strengthen this association because sexual trauma can be seen as a way of losing control. Sexual trauma threatens women's perceptions of safety in the world and decreases their belief that they guide their own recovery (Janoff-Bulman, 1992; Perloff, 1983; Schepple & Bart, 1983). Those who try to regain control back by making formal reports of military sexual trauma, may find themselves feeling more helpless because of retaliation or that their experiences are not considered legitimate or serious to warrant a report (Dardis et al, 2018, Morral et al., 2015). It was originally proposed that lack of control over changing their experiences in the military may be more troubling and threatening for individuals who have internal locus of control rather than

those who have external locus of control because for women with higher internal local of control, it violates their core belief that they can do things to make the situation better. Therefore, female veterans with higher internal locus of control would find reintegration more difficult because, according to the homecoming theory, to feel readjusted to civilian life, the veteran must regain their intimacy with others and with their community. Regaining intimacy takes time; therefore, those with external locus of control may reintegrate better because being patient with how long it takes to reintegrate has been a reported successful strategy in a qualitative study for reintegration (Aheren et al., 2015).

Despite this conceptualization, locus of control did not moderate the relation between military sexual trauma and reintegration difficulties as expected; however, locus of control did have a significant and positive direct effect on reintegration difficulties. Specifically, higher external locus of control strengthened the relation between military sexual trauma and reintegration. This finding is similar to research with civilian women in that studies have generally found higher internal locus of control is associated with more positive outcomes among women who have experienced severe sexual trauma such as rape (e.g., Regehr et al., 1999).

With respect to reintegration more specifically, it is possible that transitioning to civilian life (i.e., reintegration) may elicit thoughts and feelings about losing control as this would be consistent with the homecoming theory. That is, during reintegration veterans lose the ability or extent to which they can predict other people's feelings, thoughts, and behaviors due to loss of connection of time and space from others (Schuetz, 1945). William and Berstein (2011) found women who endorsed external locus of control had difficulty during the transition to the military as they often engaged in negative coping behaviors, such as bulimic behaviors, in an attempt to

regain control. It is possible that women who have higher external locus of control may also utilize poor coping mechanisms for dealing with the stress of reintegration leading to poor reintegration adjustment. For instance, a coping style associated with external locus of control is avoidance (Brown et al., 2002) which would seemingly be harmful for reintegration because it may lead to avoiding essential activities required for reintegration even when they may be uncomfortable (e.g., community participation, going to the grocery store). It is plausible that those who have higher external locus of control may believe they are unable to have intimacy if they place blame on others (i.e., other people do not understand me) rather than viewing it as something they control, resulting in avoidance of activities that contribute to a successful reintegration.

It is important to note that reintegration may be an ambiguous process. It contains many domains to master (Elnitsky et al., 2017). As the homecoming theory mentions, the veteran must familiarize herself with a once-known environment and familiar people that have changed and this process can result in distress due to the lack of intimacy (Schuetz, 1945). Some veterans may find themselves frustrated because it is not a singular stressful event that causes high levels of stress for one period of time but rather a slow process that causes low levels of stress over a longer period of time (Ahern et al., 2015). The reason why this is important is because when the situation is more ambiguous, control expectancies (i.e., locus of control) may play a larger role in readjustment (Folkman, 1984). Specifically, Solomon et al. (1989) found that when the battle intensity was low, external locus of control was positively related to posttraumatic stress disorder via threat appraisal (Solomon et al., 1989). The authors explained that when the battle lacks intensity, there is ambiguous information for the service member to use to explain his/her symptoms/distress because with high battle intensity the blame can be put on the situation. With

respect to presents from the present study, it is possible that external locus of control was related to more reintegration difficulties because reintegration is an ambiguous process. It is a continual process of learning to adjust to a changing environment (e.g., loved ones, children), and new work environments; however, it is not a singular clearly-defined event that the former service member can clearly articulate and blame for their challenges.

Aim 3: Indirect Effects of Depressive Symptoms on Military Sexual Trauma and Reintegration

It was predicted that depressive symptoms would significantly mediate the relation between military sexual trauma and reintegration. Past research has indicated that military sexual trauma is linked with depression (Chang et al., 2001; Haaken & Palmer, 2012; Hankin et al., 1999). Depression may come from assortment of situations such as poor reactions from loved ones regarding sexual assault or sexual harassment (Borja et al., 2006; Campbell et al., 2001; Davis et al., 1991; Moss et al., 1990) or because of violations in previously held beliefs that now paint a more negative and pessimistic view of the world leading to feelings of helplessness and hopelessness (Janoff-Bulman, 1989; Lilly et al., 2011). As previously discussed, past research has shown that depression may affect many reintegration domains such as the ability to live independently (Pavao et al., 2013), decreased work productivity (Stewart et al., 2003), interpersonal difficulties in women (Hammen & Brennan, 2002), and academic performance (Deroma et al., 2009).

This study found that depressive symptoms fully mediated the relation between military sexual assault and reintegration difficulties and the relation between military sexual harassment and reintegration difficulties. Although the mediation effect was expected, full mediation was not expected. That is, it was assumed that military sexual trauma could have other avenues of

impacting reintegration other than depression, such as through anxiety (Kimerling et al., 2010), physical symptoms (Clum et al., 2000; Seedat & Stein, 2000), substance use (Kimerling et al., 2010), institutional betrayal (Monteith et al., 2016), etc., therefore, it was assumed that there would be enough variance not explained by depressive symptoms in which military sexual trauma would maintain its direct effect.

The finding that depressive symptoms mediates the relation between military sexual trauma and reintegration demonstrates the importance of investing in programs like the Transition Assistance Program (TAP) for discharging active duty. It also may implicate the importance of making sure TAP focuses on mental health challenges and resources for service members. In their evaluation of TAP, the U.S. Department of Veteran Affairs Office of Transition and Economic Development (2020) stated that transition often led to mental health difficulties. In fact, across three TAP cohorts, 41.27% reported that TAP did not help them with information or resources on seeking mental health treatment (The U.S. Department of Veteran Affairs Office of Transition and Economic Development, 2020). Clearly, TAP should include additional information on mental health issues associated with transition.

Aim 4: Moderated Mediated Model of Locus of Control, Depressive Symptoms, Military Sexual Trauma, and Reintegration

Aim 4 explored whether locus of control moderated the relation between military sexual trauma and depressive symptoms in a mediation model. Hayes (2015) discourages conducting such a model if there are no simple moderation effects. Given that no simple moderation effects were present with locus of control, I did not run the moderated mediated model.

In contrast to expectations, the results showed that locus of control was directly related to depressive symptoms. Although it was originally predicted that external locus of control would

result in more depressive symptoms, higher external locus of control was associated with depressive symptoms. This finding is consistent with some research conducted on locus of control and mental health. External control locus of control has been found to be related to some mental health disorders. For instance, higher external locus of control has been associated with greater depression among civilians (Benassi et al., 1988), and posttraumatic stress disorder in US combat veterans (Smith et al., 2018). Further, a study concluded that among women with severe child sexual abuse, those with external locus of control experienced more depression than those with internal locus of control (Porter & Long, 1999).

It is also possible that the finding between external locus of control and depressive symptoms may be a function of how items on Rotter's (1966) measure are worded. Specifically, some researchers have argued that external locus of control items on Rotter's (1996) measure have a more negative or pessimistic tone (Aiken & Baucom, 1982; Evans & Wanty, 1979; Lamont, 1972a; Lamont, 1972b), which may mismatch with how external locus of control could be perceived. Aiken and Baucom (1982) found that external items were significantly rated as containing a more depressive tone than internal items. Some support has been found for this argument. Specifically, Evans and Wanty (1979) found that external locus of control was not significantly related to depression when the items were more balanced for mood. In fact, it may be depressed people are more likely to endorse external locus of control items merely because of their inclination to choose negatively worded items rather than endorsing the items because of the actual external content (Lamont, 1972a; Lamont, 1972b).

General Discussion

As already touched upon, the results demonstrate the importance of reducing the occurrence of military sexual trauma because of the seemingly long-lasting consequences. There

should be regular and rigorous evaluations of the military's sexual assault prevention programs. Orchowski et al. (2018) found few comprehensive evaluation studies investigating the effectiveness of sexual assault prevention programs in the military (n = 6) and only half of those were rated high in methodological rigor. The researchers found there were many gaps in knowledge as well such as the lack of follow ups on outcomes, and that for that reason, they were not able to establish whether sexual assault prevention program had any long-lasting change (Orchowski et al., 2018). Although sexual assault training is required for all service members (Defense of Logistics Agency, n.d.; Department of Defense, 2017), only a little over half consider it comprehensive and only 17.9% able to respond with 100% accuracy to the six questions about sexual assault resources and protocol (e.g., a true/false question asking "When you are in a social setting, it is your duty to stop a fellow service member from doing something potentially harmful to themselves or others," Holland et al., 2014). Results from the present study show the importance of continually researching the effectiveness of sexual assault prevention programs which the Department of Defense does annually (Department of Defense, 2019b), in an attempt to reduce occurrences of military sexual trauma.

It may be unclear to those who have experienced military sexual trauma, the full impact of its consequences until they are discharged. There is an informal "code of silence" among the military that reporting sexual harassment or sexual assault is seen as violating loyalty (Pershing, 2003). Therefore, victims of military sexual trauma may not feel comfortable discussing their experiences and making sense of what happened. Although the theory has only been applied to posttraumatic stress disorder, the constructivist theory of trauma (Mahoney & Lyddon, 1988) states that people create meaning, rules, and new schemas from their trauma often centering around trust, safety, power/control, esteem, and intimacy. This theory is similar to the world

assumptions theory in that the trauma violates beliefs which requires a change in thoughts (Janoff-Bulman, 1989). An example of a safety related belief may be that “All men are dangerous.” Cognitive theory states that people have negative and flawed beliefs which influence how they feel and behave (Beck et al., 1979). Therefore, women veterans who have experienced military sexual trauma may have difficulty with reintegration if they have these unhelpful beliefs because it may impact how they interact with others, how they take care of themselves, or how they participate in their community. When female service members cannot discuss their experiences to satisfy this code of silence, this may not allow others to challenge their thinking or allow themselves to make sense of what happened. Modifying these beliefs is what helps with the distress and maladaptive behaviors which can be done through therapy (Beck et al., 1979). Therefore, it may be useful to include educational material about how trauma (e.g., military sexual trauma) may affect reintegration into the reintegration assistance program called TAP as nearly half of those who completed the program say they did not get enough information about how to seek for mental health resources after discharge (The U.S. Department of Veteran Affairs Office of Transition and Economic Development, 2020). It may not occur to the female veteran how much her military sexual trauma impacted her until she removed herself from the military culture that encourages silence.

Further practical implications from the study include the importance of internal locus of control as it has a negative association with depressive symptoms and reintegration difficulties. Therapies or techniques that increase internal locus of control such as art therapy (Gussak, 2009) or brief biofeedback-assisted autogenic relaxation (Sharp et al., 1997) may be beneficial for assisting with the reduction of depressive symptoms and reintegration difficulties.

Theoretical implications of this study include understanding that military sexual trauma is a unique experience that occurs in the military that can affect the individual. The homecoming theory (Schuetz, 1945) was developed on male veterans and focused on how deployments or combat exposure were unique experiences. Homecoming theory never addressed military sexual trauma. Although military sexual trauma is not solely a "women issue," women experience military sexual trauma at higher rates than men (Haskell et al., 2010). It is important to represent women's experiences in the military as well as men's, including sexual trauma. The ability to explain how military sexual trauma is associated with reintegration via depression is a new contribution to the field.

Limitations and Future Directions

Since the design utilized a cross-sectional approach, causality cannot be inferred. It would be preferred to have a longitudinal design to make such inferences. It is possible that severe sexual trauma, such as military sexual assault or military sexual harassment, may lead women to develop a mindset that they do not have control over the events around them; therefore, as a result, they develop external locus of control (Porter & Long, 1999) rather than it being an independent personality trait affecting the situation. It is also important to note that time since the military sexual trauma may alter the findings. Although I conducted exploratory analyses on the effects of time since most distressing military sexual trauma which found no significant associations with depressive symptoms, reintegration difficulties, nor locus of control. It is possible however, that the nature of the sample may have impacted the lack of association between military sexual trauma and various outcomes. Specifically, in the present sample, only 26 (15.9%) participants reported that their most distressing military sexual harassment event happened 10 or less years ago. Similarly, only 13 (13.0%) of participants reported their most

distressing military sexual assault event was 10 or less years ago. Therefore, there is not a substantial number of participants who have had military sexual trauma occur recently. It is possible that external locus of control may be beneficial to utilize right after the military sexual trauma as female veterans are in situations that they cannot control due to military cultural factors like the code of silence (Pershing, 2003), poor responses from military on formal reporting (Campbell & Raja, 2005; Morral et al., 2015), and having to work alongside their perpetrator due to the nature of the military (Department of Defense, 2019b; Kimerling et al., 2007). However, it may be more beneficial to have internal locus of control when one is more removed from the military sexual trauma as they may take control more of their healing in an environment that allow for that autonomy. Ideally, future research should address the issues examined closer to the time that they occur and follow women over time.

Another limitation was an unforeseen confounding variable with COVID-19 that may have altered the findings. This survey was administered during February and May of 2020. During that time, most of the United States was encouraged to stay home or had shelter-in-place orders. A study conducted on a little over 1,000 US adults primarily sheltering in place (93.6%) during the pandemic found increased reports of loneliness as compared to loneliness in previous research (Killgore, 2020). Loneliness has been associated with many mental health disorders including depression (Stickley & Koyanagi, 2016). Not only may COVID-19 have an impact on depressive symptoms, it is also possible that COVID-19 affected many of the items measured in the Military to Civilian Questionnaire (Sayer et al., 2011). For example, one of the items on the Military to Civilian Questionnaire asks how difficult it has been, “Finding or keeping a job (paid or nonpaid or self-employment)?” (Sayer et al., 2011). During the months of data collection, there was a combined 22.2 million decrease in employment (U.S. Bureau of Labor Statistic,

2020). It is possible that COVID-19 may have exacerbated depressive symptoms rather than military sexual trauma or reintegration difficulties being directly responsible. Moreover, Annarumma et al. (2020) explain that the transitions and reorganization of families due to COVID-19 (e.g., online teaching with children, loss of a job, spending more time at home together) could be stressful especially if the family is extremely structured and prefers to keep all rules and behaviors as before the pandemic. Again, family difficulties are one aspect of reintegration that may have been impacted by COVID-19.

Further, it may be important to understand that Rotter's (1996) measure of locus of control is a unidimensional view of locus of control which others have argued may be incorrect. Specifically, Marks (1998) argued that they are different dimensions of locus of control such as "powerful others" dimension of locus of control that acknowledges that there are individuals who hold more power than themselves (Marks, 1998). It is possible that those who report greater external locus of control may do so due to discrimination informing their beliefs that there are people who do have control over their lives (Marks, 1998). Given that over 90% of the present sample endorsed their race/ethnicity as Caucasian, it was not possible to examine this idea. Research has shown that Caucasians face less discrimination based on their race compared to other groups (Eberhardt et al., 2004; Eberhardt et al., 2006; Goff et al., 2008; Hetey & Eberhardt, 2014; Lee & Ahn, 2012; McMurtry et al., 2019; Voigt et al., 2017). I concur with Marks (1998), that is, while higher internal locus of control has generally been shown to be favorable (Cobb-Clark et al., 2014; Judge & Bono, 2001; Langberg et al., 2016; Strudler Watson & Watson, 1978; Türk-Kurtça, & Kocatürk, 2020), most research has ignored cultural aspects that may influence the beliefs and usefulness of locus of control. Therefore, while higher external locus was

associated with greater reintegration difficulties for female veterans, discrimination and other variables not examined in the present study are important to examine in future research.

The multidimensional measures of locus of control may also lead to different findings with reintegration and mental health. For example, one aspect of reintegration that is important is the ability to care of one's health. Research has found that those with the external locus of control had poor management of their diabetes, but only if they had a particular external locus of control called chance locus of control (e.g., no one controls how healthy someone is), not the other type of external locus of control called powerful other locus of control (e.g., physicians have power over one's health; Morowatisharifabad et al., 2009). It may also be important to control for or to include the desire to control events as a variable as Burger (1984) found that external locus of control was only associated with depression if participants had a high longing to control events.

Although the two questions used to assess for military sexual trauma are used by the Department of Defense, the Department of Veterans Affairs, and many other studies (Department of Veterans Affairs, 2010; Haskell et al., 2010; Katz et al., 2007; Kimerling et al., 2007; Maguen et al., 2010), single items that require individuals to acknowledge sexual harassment or sexual assault may not be the best for assessing these concepts. Some women may not label their experiences as such, even when the experience matches with the definition, because of rape and sexist ideologies (LeMaire et al., 2016). These ideologies or elements that contribute to sexual trauma may be compounded by the military culture (e.g., sexualized language, negative sexual and gender beliefs, power differences between women and men, emphasis on violence; Turchik & Wilson, 2010). Therefore, it is possible that women may underreport their military sexual trauma because of these attitudes and biases. Morral et al.

(2015) found that 50% of women veterans did not report their sexual harassment because they did not believe it was serious enough even though the researchers found that it would likely meet as Military Equal Opportunity violation. It may be more beneficial to have a measure that explicitly lists different scenarios and more dimensions of sexual trauma such as the Sexual Experiences Questionnaire (Fitzgerald et al, 1999) because more women may endorse that they have experienced specific forms of sexual harassment or sexual assault but not label them as such. For example, in the Sexual Experiences Questionnaire, sexual harassment can include making crude and sexual gestures, leering/staring, whistling, and sexual jokes that some women may not perceive as sexual harassment and therefore may not acknowledge on the two item military sexual trauma questionnaire by the Department of Veterans Affairs (2010).

CHAPTER V

CONCLUSIONS

This study explored the relations between military sexual trauma, reintegration, locus of control, and depressive symptoms. Specifically, the mediation effects of depressive symptoms on the relation between military sexual trauma and reintegration. In addition, the moderation effects of locus of control on the relation between military sexual trauma and reintegration. The study also explored moderation effects of locus of control on the relation between military sexual trauma and depressive symptoms. Overall, military sexual trauma was indirectly related to reintegration via depressive symptoms. Locus of control did not significantly moderate any of the relations studied; however, it was significantly and directly related to both depressive symptoms and reintegration. Specifically, higher external locus of control was associated with greater reintegration difficulties and depressive symptoms. Future research should investigate locus of control using different dimensions of external locus of control, a more diverse sample of female veterans, and using a longitudinal design to infer causality.

REFERENCES

Adler, A. B., Bliese, P. D., McGurk, D., Hoge, C. W., & Castro, C. A. (2011). Battlemind debriefing and Battlemind training as early interventions with soldiers returning from Iraq: Randomization by platoon. *Sports, Exercise, and Performance Psychology, 1*, 66-83. https://doi.org/ 10.1037/2157-3905.1.S.66

Ahern, J., Worthen, M., Masters, J., Lippman, S. A., Ozer, E. J., & Moos, R. (2015). The challenges of Afghanistan and Iraq veterans' transition from military to civilian life and approaches to reconnection. *PloS One, 10*, 1-13. https://doi.org/ 10.1371/journal.pone.0128599

Ahrens, C. E. (2006). Being silenced: The impact of negative social reactions on the disclosure of rape. *American Journal of Community Psychology*, *38*, 31-34.https://doi.org/ 10.1007/s10464-006-9069-9

Ahrens, C., Campbell, R., Ternier-Thames, K., Wasco, S., & Sefl, T. (2007). Deciding whom to tell: Expectations and outcomes of rape survivors' first disclosures. *Psychology of Women Quarterly*, *31*, 38-49. https://doi.org/10.1111/j.1471-6402.2007.00329.x

Aiken, P. & Baucom, D. H. (1982). Locus of control and depression: That confounded relationship. *Journal of Personality Assessment., 46*(4), 391-395. https://doi.org/10.1207/s15327752jpa4604_10

Andresen, E. M., Malmgren, J. A., Carter, W. B., & Patrick, D. L. (1994). Screening for depression in well older adults: Evaluation of a short form of the CES-D. *American journal of preventive medicine, 10*(2), 77-84.

Annarumma, M., Vitale, L., Sessa, F., & Tedesco, I. (2020). The reorganization of the family system at the time of COVID-19: Educational resilience and assistive

technologies. *Problems of Psychology in the 21st Century*, *14*(1), 18-26. https://doi.org/10.33225/ppc/20.14.18

Battles, A. R., Bravo, A. J., Kelley, M. L., White, T. D., Braitman, A. L., & Hamrick, H. C. (2018). Moral injury and PTSD as mediators of the associations between morally injurious experiences and mental health and substance use. *Traumatology*, *24*(4), 246-254. https://doi.org/10.1037/trm0000153246

Beck, A. T., Rush, A. J., Shaw, B. F., & Emery, G. (1979). Cognitive therapy of depression. New York: Guilford Press.

Beehler, S., Ahern, J., Balmer, B., & Kuhlman, J. (2017). Military families' perceptions of neighborhood characteristics affecting reintegration: Development of an aggregate measure. *Military Behavioral Health*, *5*, 43-50. https://doi.org/ 10.1080/21635781.2016.1243493

Benassi, V. A., Sweeney, P. D., & Dufour, C. L. (1988). Is there a relation between locus of control orientation and depression? *Journal of Abnormal Psychology, 97*, 357-367. https://doi.org/10.1037/0021-843X.97.3.357

Bolstad, B. R., & Zinbarg, R. E. (1997). Sexual victimization, generalized perception of control, and posttraumatic stress disorder symptom severity. *Journal of Anxiety Disorders, 11*, 523-540. https://doi.org/ 10.1016/S0887-6185(97)00028-5

Borja, S. E., Callahan, J. L., & Long, P. J. (2006). Positive and negative adjustment and social support of sexual assault survivors. *Journal of Traumatic Stress, 19*, 905-914. https://doi.org/ 10.1002/jts.20169

Bravo, A. J., Kelley, M. L., & Hollis, B. F. (2016). Social support, depressive symptoms, and hazardous alcohol use among Navy members: An examination of social support as a

protective factor across deployment. *Journal of Social and Clinical Psychology*, *35*(8), 693-704. https://doi.org/ 10.1521/jscp.2016.35.8.693

Bray, R. M., Pemberton, M. R., Hourani, L. L., Witt, M., Olmsted, K. L., Brown, J. M., ... & Scheffler, S. (2009). *Department of Defense Survey of Health-related Behaviors Among Active Duty Military Personnel* (No. RTI/10940-FR). Research Triangle Institute (RTI) Research Triangle Park, NC.

Brignone, E., Gundlapalli, A. V., Blais, R. K., Carter, M. E., Suo, Y., Samore, M. H., ... & Fargo, J. D. (2016). Differential risk for homelessness among US male and female veterans with a positive screen for military sexual trauma. *JAMA Psychiatry*, *73*(6), 582-589. https://doi.org/10.1001/jamapsychiatry.2016.0101

Brown, J., Mulhern, G., & Joseph, S. (2002). Incident-related stressors, locus of control, coping, and psychological distress among firefighters in Northern Ireland. *Journal of Traumatic Stress*, *15*(2), 161-168. https://doi.org/ 10.1023/A:1014816309959.

Bryan, C. J., Jennings, K. W., Jobes, D. A., & Bradley, J. C. (2012). Understanding and preventing military suicide. *Archives of Suicide Research, 16*, 95–110. https://doi.org/10.1080/13811118.2012.667321

Budson, A. E. (2009). Understanding memory dysfunction. *The Neurologist*, *15*, 71-79. https://doi.org/ 10.1097/NRL.0b013e318188040d

Burger, J. M. (1984). Desire for control, locus of control, and proneness to depression. *Journal of Personality*, *52*(1), 71-89. https://doi.org/10.1111/j.1467-6494.1984.tb00551.x

Burnett-Zeigler, I., Ilgen, M., Valenstein, M., Zivin, K., Gorman, L., Blow, A., ... & Chermack, S. (2011). Prevalence and correlates of alcohol misuse among returning Afghanistan and

Iraq veterans. *Addictive Behaviors, 36,* 801-806. https://doi.org/ 10.1016/j.addbeh.2010.12.032

Burns, B., Grindlay, K., Holt, K., Manski, R., & Grossman, D. (2014). Military sexual trauma among US servicewomen during deployment: a qualitative study. *American Journal of Public Health, 104*, 345-349. https://doi.org/ 10.2105/AJPH.2013.301576

Calhoun, P. S., Elter, J. R., Jones Jr, E. R., Kudler, H., & Straits-Tröster, K. (2008). Hazardous alcohol use and receipt of risk-reduction counseling among US veterans of the wars in Iraq and Afghanistan. *The Journal of Clinical Psychiatry*, *69*, 1686-1693. https://doi.org/ 10.4088/JCP.v69n1103

Campbell, R., & Raja, S. (2005). The sexual assault and secondary victimization of female veterans: Help-seeking experiences with military and civilian social systems. *Psychology of Women Quarterly*, *29*, 97-106. https://doi.org/ 10.1111/j.1471-6402.2005.00171.x

Campbell, R., Ahrens, C., Sefl, T., Wasco, S. M., & Barnes, H. E. (2001). Social reactions to rape victims: Healing and hurtful effects on psychological and physical health outcomes. *Violence & Victims, 16*, 287-302. https://doi.org/ 10.1891/0886-6708.16.3.287

Campbell, R., Dworkin, E., & Cabral, G. (2009). An ecological model of the impact of sexual assault on women's mental health. *Trauma, Violence, & Abuse*, *10*(3), 225-246. https://doi.org/ 10.1177/1524838009334456

Campbell, R., Dworkin, E., & Cabral, G. (2009). An ecological model of the impact of sexual assault on women's mental health. *Trauma, Violence, & Abuse*, *10*, 225-246. https://doi.org/ 10.1177/1524838009334456

Chang, B. H., Skinner, K. M., & Boehmer, U. (2001). Religion and mental health among women veterans with sexual assault experience. *The International Journal of Psychiatry in Medicine*, 31, 77-95. https://doi.org/ 10.2190/0NQA-YAJ9-W0AM-YB3P

Clum, G. A., Calhoun, K. S., & Kimerling, R. (2000). Associations among symptoms of depression and posttraumatic stress disorder and self-reported health in sexually assaulted women. *The Journal of Nervous and Mental Disease, 188*(10), 671-678. https://doi.org/ 10.1097/00005053-200010000-00005

Cobb-Clark, D. A., Kassenboehmer, S. C., & Schurer, S. (2014). Healthy habits: The connection between diet, exercise, and locus of control. *Journal of Economic Behavior & Organization, 98,* 1-28. https://doi.org/10.1016/j.jebo.2013.10.011

Coll, J. E., Weiss, E. L., & Yarvis, J. S. (2011). No one leaves unchanged: Insights for civilian mental health care professionals into the military experience and culture. *Social Work in Health Care, 50,* 487–500. https://doi.org/10.1080/00981389.2010.528727

Congressional Research Service (July 12, 2018). *Military Transition Assistance Program (TAP): An overview.* https://fas.org/sgp/crs/natsec/IF10347.pdfUs

Cortina, J. M. (1993). What is coefficient alpha? An examination of theory and applications. *Journal of Applied Psychology, 78*(1), 98-104. https://doi.org/10.1037/0021-9010.78.1.98

Creech, S. K., Swift, R., Zlotnick, C., Taft, C., & Street, A. E. (2016). Combat exposure, mental health, and relationship functioning among women veterans of the Afghanistan and Iraq wars. *Journal of Family Psychology, 30,* 43- 51. https://doi.org/ 10.1037/fam0000145

Crome, S., & McCabe, M. (1995). The impact of rape on individual, interpersonal, and family functioning. *Journal of Family Studies*, 1, 58−70. https://doi.org/ 10.5172/jfs.1.1.58

Cruwys, T., Haslam, S. A., Dingle, G. A., Haslam, C., & Jetten, J. (2014). Depression and social identity: An integrative review. *Personality and Social Psychology Review, 18,* 215-238. https://doi.org/ 10.1177/1088868314523839

Dardis, C. M., Reinhardt, K. M., Foynes, M. M., Medoff, N. E., & Street, A. E. (2018). "Who are you going to tell? Who's going to believe you?" Women's experiences disclosing military sexual trauma. *Psychology of Women Quarterly, 42*(4), 414-429. https://doi.org/10.1177/0361684318796783

Davenport, M. (1987). Professionals or hired guns? Loyalties are the difference. In M. M. Watkin, K. Wenker, & J. Kempf (Eds.), *Military Ethics: Reflections on Principles—The Profession of Arms, Military Leadership, Ethical Practices, War and Morality, Educating the Citizen Soldier* (pp. 5–12). Washington, DC: National Defense University Press.

Davis, R. C., Brickman, E., & Baker, T. (1991). Supportive and unsupportive responses of others to rape victims: effects on concurrent victim adjustment. *American Journal of Community Psychology, 19*(3), 443-451. https://doi.org/ 10.1007/BF00938035.

Defense of Logistic Agency (n.d.). *Sexual Assault and Response (SAPR) training.* https://www.dla.mil/Info/SAPR/training/

Demers, A. (2011). When veterans return: The role of community in reintegration. *Journal of Loss and Trauma, 16,* 160-179. https://doi.org/ 10.1080/15325024.2010.519281

Department of Defense (2017a). *Sexual Assault and Response (SAPR) Program procedure.* https://www.esd.whs.mil/Portals/54/Documents/DD/issuances/dodi/649502p.pdf

Department of Defense (2017b). Yellow Ribbon Reintegration Program fiscal year 2017 annual report. Retrieved from https://www.yellowribbon.mil/cms/wp-content/uploads/2019/01/annualReport2017.pdf

Department of Defense (2019a). Appendix F: Sexual harassment assessment. Retrieved from https://www.sapr.mil/sites/default/files/Appendix_F_Sexual_Harassment_Assessment.pdf

Department of Defense (2019b). *Department of Defense annual report on sexual assault in the military*: *Fiscal year 2018* (Report No. 7-1ED0167). Retrieved from https://www.sapr.mil/sites/default/files/DoD_Annual_Report_on_Sexual_Assault_in_the_Military.pdf

Department of Veterans Affairs (2010). VHA directive 2010–033: Military sexual trauma (MST) programming. Washington, DC. Retrieved from http://www.va.gov/vhapublications/ViewPublication.asp?pub_ID = 2272

Deroma, V. M., Leach, J. B., & Leverett, J. P. (2009). The relationship between depression and college academic performance. *College Student Journal*, *43*, 325-335. https://doi.org/ 0029-2559/2012/73301

Doyle, M. E., & Peterson, K. A. (2005). Re-entry and reintegration: Returning home after combat. *Psychiatric Quarterly, 76*, 361-370. https://doi.org/ 10.1007/s11126-005-4972-z

Eberhardt, J. L., Davies, P. G., Purdie-Vaughns, V. J., & Johnson, S. L. (2006). Looking deathworthy: Perceived stereotypicality of Black defendants predicts capital-sentencing outcomes. *Psychological Science, 17,* 383–386.

Eberhardt, J. L., Goff, P. A., Purdie, V. J., & Davies, P. G. (2004). Seeing Black: Race, crime and visual processing. *Journal of Personality and Social Psychology, 87*, 876– 893. https://doi.org/10.1037/0022-3514.87.6.876

Elnitsky, C. A., Fisher, M. P., & Blevins, C. L. (2017). Military service member and veteran reintegration: a conceptual analysis, unified definition, and key domains. *Frontiers in Psychology*, *8*, 1-14. https://doi.org/ 10.3389/fpsyg.2017.00369

Evans, R. & Wanty, W. (1979). I-E scale responses as a function of subject mood level. *Journal of Personality Assessment., 43*(2), 166-170. https://doi.org/10.1207/s15327752jpa4302_11

Field, A.P. (2009). Discovering statistics using SPSS: and sex and drugs and rock 'n' roll (3rd edition). London:Sage.

Fitzgerald, L. F., Magley, V. J., Drasgow, F., & Waldo, C. R. (1999). Measuring sexual harassment in the military: The sexual experiences questionnaire (SEQ—DoD). *Military Psychology*, *11*(3), 243-263. https://doi.org/10.1207/s15327876mp1103_3

Folkman, S. (1984). Personal control and stress and coping processes: a theoretical analysis. *Journal of Personality and Social Psychology*, *46*(4), 839-852. https://doi.org/ 10.1037//0022-3514.46.4.839.

Fulton, J. J., Calhoun, P. S., Wagner, H. R., Schry, A. R., Hair, L. P., Feeling, N., ... & Beckham, J. C. (2015). The prevalence of posttraumatic stress disorder in Operation Enduring Freedom/Operation Iraqi Freedom (OEF/OIF) Veterans: A meta-analysis. *Journal of Anxiety Disorders*, *31*, 98-107. https://doi.org/ 10.1016/j.janxdis.2015.02.003.

Goff, P. A., Eberhardt, J. L., Williams, M. J., & Jackson, M. C. (2008). Not yet human: implicit knowledge, historical dehumanization, and contemporary consequences. *Journal of Personality and Social Psychology*, *94*(2), 292-306. https://doi.org/10.1037/0022-3514.94.2.292

Goodcase, E. T., Love, H. A., & Ladson, E. (2015). A conceptualization of processing military sexual trauma within the couple relationship. *Contemporary Family Therapy*, *37*(3), 291-301. https://doi.org/10.1007/s10591-015-9354-6

Gussak, D. (2009). Comparing the effectiveness of art therapy on depression and locus of control of male and female inmates. *The Arts in Psychotherapy*, *36*(4), 202-207. https://doi.org/10.1016/j.aip.2009.02.004

Haaken, J., & Palmer, T. (2012). War stories: Discursive strategies in framing military sexual trauma. *Psychoanalysis, Culture & Society*, *17*, 325-333. https://doi.org/ 10.1057/pcs.2012.7

Hammen, C., & Brennan, P. A. (2002). Interpersonal dysfunction in depressed women: Impairments independent of depressive symptoms. *Journal of Affective Disorders, 72*, 145-156. https://doi.org/ 10.1016/S0165-0327(01)00455-4

Hankin, C. S., Skinner, K. M., Sullivan, L. M., Miller, D. R., Frayne, S., & Tripp, T. J. (1999). Prevalence of depressive and alcohol abuse symptoms among women VA outpatients who report experiencing sexual assault while in the military. *Journal of Traumatic Stress, 12*, 601-612. https://doi.org/ 10.1023/A:1024760900213

Harned, M. S., Ormerod, A. J., Palmieri, P. A., Collinsworth, L. L., & Reed, M. (2002). Sexual assault and other types of sexual harassment by workplace personnel: a comparison of antecedents and consequences. *Journal of Occupational Health Psychology*, *7*, 174-188. https://doi.org/ 10.1037//1076-8998.7.2.174

Haskell, S. G., Gordon, K. S., Mattocks, K., Duggal, M., Erdos, J., Justice, A., & Brandt, C. A. (2010). Gender differences in rates of depression, PTSD, pain, obesity, and military

sexual trauma among Connecticut war veterans of Iraq and Afghanistan. *Journal of Women's Health, 19,* 267-271. https://doi.org/ 10.1089=jwh.2008.1262

Hawkins, B. L., & Crowe, B. M. (2018). Contextual facilitators and barriers of community reintegration among injured female military veterans: A qualitative study. *Archives of Physical Medicine and Rehabilitation, 99*(2), S65-S71.https://doi.org/ 10.1016/j.apmr.2017.07.018

Hayes, A. F. (2015). An index and test of linear moderated mediation. *Multivariate Behavioral Research, 50*(1), 1-22. https://doi.org/10.1080/00273171.2014.962683

Hetey, R. C., & Eberhardt, J. L. (2014). Racial disparities in incarceration increase acceptance of punitive policies. *Psychological Science, 25*(10), 1949-1954. https://doi.org/ 10.1177/0956797614540307

Hoge, C. W., Castro, C. A., Messer, S. C., McGurk, D., Cotting, D. I., & Koffman, R. L. (2004). Combat duty in Iraq and Afghanistan, mental health problems, and barriers to care. *New England Journal of Medicine, 351*(1), 13-22. https://doi.org/ 10.1056/NEJMoa040603

Holland, K. J., Rabelo, V. C., & Cortina, L. M. (2014). Sexual assault training in the military: Evaluating efforts to end the "invisible war". *American Journal of Community Psychology, 54,* 289-303. https://doi.org/10.1007/s10464-014-9672-0

Hourani, L. L., Williams, J., Forman-Hoffman, V., Lane, M. E., Weimer, B., & Bray, R. M. (2012). Influence of spirituality on depression, posttraumatic stress disorder, and suicidality in active duty military personnel. *Depression Research and Treatment, 1,* 1-9. https://doi.org/ 10.1155/2012/425463

Hourani, L., Williams, J., Bray, R., & Kandel, D. (2015). Gender differences in the expression of PTSD symptoms among active duty military personnel. *Journal of Anxiety Disorders, 29*, 101-108. https://doi.org/ 10.1016/j.janxdis.2014.11.007

Interian, A., Kline, A., Callahan, L., & Losonczy, M. (2012). Readjustment stressors and early mental health treatment seeking by returning National Guard soldiers with PTSD. *Psychiatric Services, 63*(9), 855-861. https://doi.org/ 10.1176/appi.ps.201100337

Isely, P., & Gehrenbeck-Shim, D. (1997). Sexual assault of men in the community. *Journal of Community Psychology*, 25, 159−166. https://doi.org/ 10.1002/(SICI)1520 6629(199703)25:2<159::AID-JCOP5>3.0.CO;2-T

Jackson, D. L. (2003). Revisiting sample size and number of parameter estimates: Some support for the N: q hypothesis. *Structural Equation Modeling, 10*(1), 128-141. https://doi.org/ 10.1207/S15328007SEM1001_6

Janoff-Bulman, R. (1989). Assumptive worlds and the stress of traumatic events: Applications of the schema construct. *Social Cognition, 7*(2), 113-136.

Janoff-Bulman, R. (1992). Shattered assumptions: Towards a new psychology of trauma. New York: Free Press

Judge, T. A., & Bono, J. E. (2001). Relationship of core self-evaluations traits—self-esteem, generalized self-efficacy, locus of control, and emotional stability—with job satisfaction and job performance: A meta-analysis. *Journal of Applied Psychology*, *86*(1), 80-92. https://doi.org/10.1037/0021-9010.86.1.80

Katz, L. S., Bloor, L. E., Cojucar, G., & Draper, T. (2007). Women who served in Iraq seeking mental health services: Relationships between military sexual trauma, symptoms, and

readjustment. *Psychological Services*, *4*, 239 -249. https://doi.org/ 10.1037/1541-1559.4.4.239

Katz, L. S., Cojucar, G., Beheshti, S., Nakamura, E., & Murray, M. (2012). Military sexual trauma during deployment to Iraq and Afghanistan: Prevalence, readjustment, and gender differences. *Violence and Victims, 27*(4), 487-499. https://doi.org/ 10.1891/0886-6708.27.4.487

Katz, L. S., Cojucar, G., Davenport, C. T., Pedram, C., & Lindl, C. (2010). Post-deployment readjustment inventory: Reliability, validity, and gender differences. *Military Psychology*, *22*(1), 41-56. https://doi.org/10.1080/08995600903249222

Kearns, J. C., Gorman, K. R., Bovin, M. J., Green, J. D., Rosen, R. C., Keane, T. M., & Marx, B. P. (2016). The effect of military sexual assault, combat exposure, postbattle experiences, and general harassment on the development of PTSD and MDD in Female OEF/OIF veterans. *Translational Issues in Psychological Science*, *2*(4), 418-428. https://doi.org/10.1037/tps0000098

Kelly, U. A., Skelton, K., Patel, M., & Bradley, B. (2011). More than military sexual trauma: Interpersonal violence, PTSD, and mental health in women veterans. *Research in Nursing & Health*, *34*(6), 457-467. https://doi.org/ 10.1002/nur.20453

Killgore, W. D., Cloonen, S. A., Taylor, E. C., & Dailey, N. S. (2020). Loneliness: A signature mental health concern in the era of COVID-19. *Psychiatry Research*, 113-117. https://doi.org/10.1016/j.psychres.2020.113117

Kimerling, R., Gima, K., Smith, M. W., Street, A., & Frayne, S. (2007). The Veterans Health Administration and military sexual trauma. *American Journal of Public Health*, *97*, 2160-2166. https://doi.org/ 10.2105/AJPH.2009.171793

Kimerling, R., Street, A. E., Pavao, J., Smith, M. W., Cronkite, R. C., Holmes, T. H., & Frayne, S. M. (2010). Military-related sexual trauma among Veterans Health Administration patients returning from Afghanistan and Iraq. *American Journal of Public Health*, *100*(8), 1409-1412. https://doi.org/ 10.2105/AJPH.2009.171793

Koenig, C. J., Maguen, S., Monroy, J. D., Mayott, L., & Seal, K. H. (2014). Facilitating culture-centered communication between health care providers and veterans transitioning from military deployment to civilian life. *Patient Education and Counseling*, *95*, 414-420. https://doi.org/ 10.1016/j.pec.2014.03.016.

Lamont, J. (1972). Item mood-level as a determinant of I-E Test response. *Journal of Clinical Psychology.*, *28*(2), 190.

Lamont, J. (1972a). Depression, locus of control and mood response set. *Journal of Clinical Psychology*, *28*, 342-345. https://doi.org/10.1002/1097-4679(197207)28:3+<342::AID-JCLP2270280308>3.0.CO;2-X

Langberg, J. M., Dvorsky, M. R., Becker, S. P., & Molitor, S. J. (2016). School maladjustment and external locus of control predict the daytime sleepiness of college students with ADHD. *Journal of Attention Disorders*, *20*(9), 792-801. https://doi.org/ 10.1177/1087054714529818

Lawton, M. P., & Brody, E. M. (1969). Assessment of older people: self-maintaining and instrumental activities of daily living. *The Gerontologist*, *9*, 179-186. https://doi.org/ 10.1093/geront/9.3_Part_1.179

Lee, D. L., & Ahn, S. (2012). Discrimination against Latina/os: A meta-analysis of individual-level resources and outcomes. *The Counseling Psychologist*, *40*(1), 28-65. https://doi.org/10.1177/0011000011403326

Lefcourt, H. M. (1976). Locus of control and the response to aversive events. *Canadian Psychological Review/Psychologie Canadienne, 17*, 202 -209. https://doi.org/ 10.1037/h0081839

LeMaire, K. L., Oswald, D. L., & Russell, B. L. (2016). Labeling sexual victimization experiences: the role of sexism, rape myth acceptance, and tolerance for sexual harassment. *Violence and Victims, 31*(2), 332-346. https://doi.org/ 10.1891/0886-6708.VV-D-13-00148

Leslie, L. A., & Koblinsky, S. A. (2017). Returning to civilian life: Family reintegration challenges and resilience of women veterans of the Iraq and Afghanistan wars. *Journal of Family Social Work, 20*(2), 106-123. https://doi.org/10.1080/10522158.2017.1279577

Lilly, M. M., Valdez, C. E., & Graham-Bermann, S. A. (2011). The mediating effect of world assumptions on the relationship between trauma exposure and depression. *Journal of Interpersonal Violence, 26*(12), 2499-2516. https://doi.org/10.1177/0886260510383033

Lynn, B. M-D., & Morgan, J. (2016). Using Amazon's Mechanical Turk (MTurk) to recruit military Veterans: Issues and suggestions. *The Military Psychologist, 31*(3), 10-14.

Maguen, S., Cohen, B., Ren, L., Bosch, J., Kimerling, R., & Seal, K. (2012). Gender differences in military sexual trauma and mental health diagnoses among Iraq and Afghanistan veterans with posttraumatic stress disorder. *Women's Health Issues, 22*(1), e61-e66. https://doi.org/ 10.1016/j.whi.2011.07.010

Mahoney, M. J., & Lyddon, W. J. (1988). Recent developments in cognitive approaches to counseling and psychotherapy. *The Counseling Psychologist, 16*(2), 190-234. https://doi.org/10.1177/0011000088162001

Maier, S. F., & Seligman, M. E. (1976). Learned helplessness: theory and evidence. *Journal of experimental Psychology: General, 105*, 3-46. https://doi.org/ 10.1037/0096-3445.105.1.3

Marks, L. I. (1998). Deconstructing locus of control: Implications for practitioners. *Journal of Counseling & Development, 76*(3), 251-260. https://doi.org/10.1002/j.1556-6676.1998.tb02540.x

Mattocks, K. M., Haskell, S. G., Krebs, E. E., Justice, A. C., Yano, E. M., & Brandt, C. (2012). Women at war: Understanding how women veterans cope with combat and military sexual trauma. *Social Science & Medicine, 74*(4), 537-545. https://doi.org/10.1016/j.socscimed.2011.10.039

McCormack, L., & Ell, L. (2017). Complex psychosocial distress postdeployment in veterans: Reintegration identity disruption and challenged moral integrity. *Traumatology*, 23, 240-249. https://doi.org/ 10.1037/trm0000107

McMurtry, C. L., Findling, M. G., Casey, L. S., Blendon, R. J., Benson, J. M., Sayde, J. M., & Miller, C. (2019). Discrimination in the United States: Experiences of Asian Americans. *Health Services Research*, *54*, 1419-1430. https://doi.org/ 10.1111/1475-6773.13225

Monteith, L. L., Bahraini, N. H., Matarazzo, B. B., Soberay, K. A., & Smith, C. P. (2016). Perceptions of institutional betrayal predict suicidal self-directed violence among veterans exposed to military sexual trauma. *Journal of Clinical Psychology*, *72*(7), 743-755. https://doi.org/10.1002/jclp.22292

Moriarty, H., Winter, L., Robinson, K., True, G., Piersol, C., Vause-Earland, T., ... & Short, T. H. (2015). Exploration of individual and family factors related to community

reintegration in veterans with traumatic brain injury. *Journal of the American Psychiatric Nurses Association, 21,* 195-211.https://doi.org/ 10.1177/1078390315591879

Morowatisharifabad, M., Mazloomy Mahmoodabad, S., Baghianimoghadam, M., & Rouhani Tonekaboni, N. (2009). Relationships between locus of control and adherence to diabetes regimen. *Journal of Research in Health Sciences, 9*(1), 37-44. https://doi.org/ 10.4103/0973-3930.60009

Morral, A. R., Gore, K. L., & Schell, T. L. (Eds.) (2015). *Sexual harassment in the military: Volume 2. Estimates for Department of Defense service members from the 2014 RAND Military Workplace Study.* Retrieved from https://www.rand.org/content/dam/rand/pubs/research_reports/RR800/RR870z2-1/RAND_RR870z2-1.pdf

Moss, M., Frank, E., & Anderson, B. (1990). The effects of marital status and partner support on rape trauma. *American Journal of Orthopsychiatry, 60*(3), 379-391. https:/doi.org/ https://doi.org/10.1037/h0079179

Muller, D., Judd, C. M., & Yzerbyt, V. Y. (2005). When mediation is moderated and moderation is mediated. *Journal of Personality and Social Psychology, 89*(6), 852–863. https://doi.org/10.1037/0022-3514.89.6.852

Norman, S. B., Rosen, J., Himmerich, S., Myers, U. S., Davis, B., Browne, K. C., & Piland, N. (2015). Student veteran perceptions of facilitators and barriers to achieving academic goals. *Journal of Rehabilitation Research & Development, 52,* 701-712. https://doi.org/ 10.1682/JRRD.2015.01.0013.

Northcut, T. B., & Kienow, A. (2014). The trauma trifecta of military sexual trauma: A case study illustrating the integration of mind and body in clinical work with survivors of

MST. *Clinical Social Work Journal, 42*, 247-259. https://doi.org/ 10.1007/s10615-014-0479-0

O'Brien, R. M. (2007). A caution regarding rules of thumb for variance inflation factors. *Quality & Quantity*, *41*(5), 673-690. https://doi.org/ 10.1007/s11135-006-9018-6

Orazem, R. J., Frazier, P. A., Schnurr, P. P., Oleson, H. E., Carlson, K. F., Litz, B. T., & Sayer, N. A. (2017). Identity adjustment among Afghanistan and Iraq war veterans with reintegration difficulty. *Psychological Trauma: Theory, Research, Practice, and Policy, 9*, 4-11. https://doi.org/ 10.1037/tra0000225

Orchowski, L. M., Berry-Cabán, C. S., Prisock, K., Borsari, B., & Kazemi, D. M. (2018). Evaluations of sexual assault prevention programs in military settings: A synthesis of the research literature. *Military medicine*, *183*(1), 421-428. https://doi.org/ 10.1093/milmed/usx212

Parkes, C. M. (1975). What becomes of redundant world models? A contribution to the study of adaptation to change. *British Journal of Medical Psychology, 48*, 131-137

Pavao, J., Turchik, J. A., Hyun, J. K., Karpenko, J., Saweikis, M., McCutcheon, S., ... & Kimerling, R. (2013). Military sexual trauma among homeless veterans. *Journal of General Internal Medicine*, 28, 536-541.https://doi.org/ 10.1007/s11606-013-2341-4

Perlmuter, L. C., & Monty, R. A. (1977). The importance of perceived control: Fact or fantasy? Experiments with both humans and animals indicate that the mere illusion of control significantly improves performance in a variety of situations. *American Scientist*, *65*(6), 759-765.

Perloff, L.S. (1983). Perceptions of vulnerability to victimization. *Journal of Social Issues, 39,* 41–61. https://doi.org/ 10.1111/j.1540-4560.1983.tb00140.x

Pershing, J. L. (2003). Why women don't report sexual harassment: A case study of an elite military institution. *Gender issues, 21*(4), 3-30. https://doi.org/10.1007/s12147-003-0008-x

Petrak, J. (2002). The psychological impact of sexual assault. In J. Petrak & B. Hedge (Eds.), The trauma of sexual assault (pp. 19−43). New York. NY: John Wiley & Sons.

Philippe, F. L., Koestner, R., & Lekes, N. (2013). On the directive function of episodic memories in people's lives: A look at romantic relationships. *Journal of Personality and Social Psychology*, *104*, 164 - 179. https://doi.org/ 10.1037/a0030384

Pietrzak, R. H., Johnson, D. C., Goldstein, M. B., Malley, J. C., Rivers, A. J., Morgan, C. A., & Southwick, S. M. (2009). Psychosocial buffers of traumatic stress, depressive symptoms, and psychosocial difficulties in veterans of Operations Enduring Freedom and Iraqi Freedom: The role of resilience, unit support, and postdeployment social support. *Journal of Affective Disorders*, *120*, 188–192. https://doi.org/10.1016/j.jad.2009.04.015

Porter, C. A., & Long, P. J. (1999) Locus of control and adjustment in female adult survivors of childhood sexual abuse, *Journal of Child Sexual Abuse*, *8*(1), 3-25, https://doi.org/10.1300/J070v08n01_02

Price, M., Gros, D. F., Strachan, M., Ruggiero, K. J., & Acierno, R. (2013). Combat experiences, pre-deployment training, and outcome of exposure therapy for post-traumatic stress disorder in Operation Enduring Freedom/Operation Iraqi Freedom veterans. *Clinical Psychology & Psychotherapy*, *20*, 277-285. https://doi.org/ 10.1002/cpp.1768

Regehr, C., Cadell, S., & Jansen, K. (1999). Perceptions of control and long-term recovery from rape. *American Journal of Orthopsychiatry*, *69*(1), 110-115. https://doi.org/10.1037/h0080386

Resnik, L., Bradford, D. W., Glynn, S. M., Jette, A. M., Johnson Hernandez, C., & Wills, S. (2012). Issues in defining and measuring veteran community reintegration: proceedings of the Working Group on Community Reintegration, VA Rehabilitation Outcomes Conference, Miami, Florida. *Journal of Rehabilitation Research & Development*, *49*(1). https://doi.org/ 10.1682/JRRD.2010.06.0107

Rotter, J. B. (1966). Generalized expectancies for internal versus external control of reinforcement. *Psychological monographs: General and Applied*, *80*, 1-28. https://doi.org/ 10.1037/h0092976

Sadler, A. G., Booth, B. M., Mengeling, M. A., & Doebbeling, B. N. (2004). Life span and repeated violence against women during military service: Effects on health status and outpatient utilization. *Journal of Women's Health*, *13*, 799-811. https://doi.org/ 10.1089/jwh.2004.13.799

Sayer, N. A., Carlson, K. F., & Frazier, P. A. (2014). Reintegration challenges in US service members and veterans following combat deployment. *Social Issues and Policy Review*, *8*, 33-73. https://doi.org/ 10.1111/sipr.12001

Sayer, N. A., Frazier, P., Orazem, R. J., Murdoch, M., Gravely, A., Carlson, K. F., ... & Noorbaloochi, S. (2011). Military to civilian questionnaire: a measure of postdeployment community reintegration difficulty among veterans using Department of Veterans Affairs medical care. *Journal of Traumatic Stress*, *24*, 660-670. https://doi.org/ 10.1002/jts.20706

Sayer, N. A., Noorbaloochi, S., Frazier, P., Carlson, K., Gravely, A., & Murdoch, M. (2010). Reintegration problems and treatment interests among Iraq and Afghanistan combat veterans receiving VA medical care. *Psychiatric Services*, *61*, 589-597. https://doi.org/ 10.1176/ps.2010.61.6.589

Sayer, N. A., Orazem, R. J., Noorbaloochi, S., Gravely, A., Frazier, P., Carlson, K. F., ... & Oleson, H. (2015). Iraq and Afghanistan War veterans with reintegration problems: Differences by Veterans Affairs healthcare user status. *Administration and Policy in Mental Health and Mental Health Services Research*, *42*, 493-503. https://doi.org/ 10.1007/s10488-014-0564-2

Schepple, K., & Bart, P. (1983). Through women's eyes: Defining danger in the wake of sexual assault. *Journal of Social Issues*, 39, 63–80. https://doi.org/ 10.1111/j.1540-4560.1983.tb00141.x

Schuetz, A. (1945). The homecomer. *American Journal of Sociology*, *50*(5), 369-376.

Schultz, J. R., Bell, K. M., Naugle, A. E., & Polusny, M. A. (2006). Child sexual abuse and adulthood sexual assault among military veteran and civilian women. *Military Medicine*, *171*(8), 723-728. https://doi.org/ 10.7205/milmed.171.8.723

Seedat, A., & Stein, D.J. (2000). Trauma and post-traumatic stress disorder in women: A review. *International Clinical Psychopharmacology, 15*, S25-S33.

Sharp, C., Hurford, D. P., Allison, J., Sparks, R., & Cameron, B. P. (1997). Facilitation of internal locus of control in adolescent alcoholics through a brief biofeedback-assisted autogenic relaxation training procedure. *Journal of Substance Abuse Treatment, 14*(1), 55-60.

Singh, J. A., Borowsky, S. J., Nugent, S., Murdoch, M., Zhao, Y., Nelson, D. B., ... & Nichol, K. L. (2005). Health-related quality of life, functional impairment, and healthcare utilization by veterans: Veterans' quality of life study. *Journal of the American Geriatrics Society*, *53*, 108-113. https://doi.org/ 10.1111/j.1532-5415.2005.53020.x

Skinner, K. M., Kressin, N., Frayne, S., Tripp, T. J., Hankin, C. S., Miller, D. R., & Sullivan, L. M. (2000). The prevalence of military sexual assault among female Veterans' Administration outpatients. *Journal of Interpersonal Violence, 15*, 291-310. https://doi.org/ 10.1177/088626000015003005

Smith, N. B., Sippel, L. M., Presseau, C., Rozek, D., Mota, N., Gordon, C., ... & Harpaz-Rotem, I. (2018). Locus of control in US combat veterans: Unique associations with posttraumatic stress disorder 5-factor model symptom clusters. *Psychiatry Research, 268*, 152-156. https://doi.org/ 10.1016/j.psychres.2018.07.015

Smith, N., Lam, D., Bifulco, A., & Checkley, S. (2002). Childhood Experience of Care and Abuse Questionnaire (CECA.Q). *Social Psychiatry and Psychiatric Epidemiology,* 37(12), 572–579. https://doi.org/10.1007/s00127-002-0589-9

Solomon, Z., Mikulincer, M., & Avitzur, E. (1988). Coping, locus of control, social support, and combat-related posttraumatic stress disorder: a prospective study. *Journal of Personality and Social Psychology, 55*, 279-285. https://doi.org/ 10.1037/0022-3514.55.2.279

Solomon, Z., Mikulincer, M., & Benbenishty, R. (1989). Locus of control and combat-related post-traumatic stress disorder: The intervening role of battle intensity, threat appraisal and coping. *British Journal of Clinical Psychology, 28*(2), 131-144. https://doi.org/10.1111/j.2044-8260.1989.tb00823.x

Specht, J., Egloff, B., & Schmukle, S. C. (2011). The benefits of believing in chance or fate: External locus of control as a protective factor for coping with the death of a spouse. *Social Psychological and Personality Science*, *2*(2), 132-137. https://doi/org/ 10.1177/1948550610384635

Stander, V. A., & Thomsen, C. J. (2016). Sexual harassment and assault in the US military: a review of policy and research trends. *Military Medicine, 181*, 20-27. https://doi.org/ 10.7205/MILMED-D-15-00336

Stewart, W. F., Ricci, J. A., Chee, E., Hahn, S. R., & Morganstein, D. (2003). Cost of lost productive work time among US workers with depression. *Journal of the American Medical Association, 289*, 3135-3144. https://doi.org/10.1001jama.289.23.3135

Stickley, A., & Koyanagi, A. (2016). Loneliness, common mental disorders and suicidal behavior: findings from a general population survey. *Journal of Affective Disorders, 197,* 81–87. https://doi.org/ 10.1016/j.jad.2016.02.054

Strudler Wallston, B., & Wallston, K. A. (1978). Locus of control and health: A review of the literature. *Health Education Monographs, 6*(1), 107-117. https://doi.org/10.1177/109019817800600102

Surís, A., & Lind, L. (2008). Military sexual trauma: A review of prevalence and associated health consequences in veterans. *Trauma, Violence, & Abuse*, 9, 250-269. https://doi.org/ 10.1177/1524838008324419

Turchik, J. A., & Wilson, S. M. (2010). Sexual assault in the US military: A review of the literature and recommendations for the future. *Aggression and Violent Behavior*, *15*(4), 267-277. https://doi.org/10.1016/j.avb.2010.01.005

Türk-Kurtça, T., & Kocatürk, M. (2020). The role of childhood traumas, emotional self-efficacy and internal-external locus of control in predicting psychological resilience. *International Journal of Education and Literacy Studies, 8*(3), 105-115. http://doi.org/10.7575/aiac.ijels.v.8n.3p.105

U.S. Bureau of Labor Statistics (July 2, 2020). *The impact of the coronavirus (COVID-19) pandemic on employment situation for June 2020.* https://www.bls.gov/cps/employment-situation-covid19-faq-june-2020.pdf

U.S. Department of Veterans Affairs Office of Transition and Economic Development (June 3, 2020). *Post-Separation Transition Assistance Program (TAP) assessment (PSTAP). 2019 Cross-Sectional Survey Report*. Retrieved from https://benefits.va.gov/TRANSITION/docs/pstap-assessment.pdf

Ullman, S. E., & Peter-Hagene, L. (2014). Social reactions to sexual assault disclosure, coping, perceived control, and PTSD symptoms in sexual assault victims. *Journal of Community Psychology, 42,* 495-508. https://doi.org/10.1002/jcop.21624

Vogt, D. S., Smith, B. N., King, L. A., King, D. W., Knight, J. A., & Vasterling, J. J. (2013). Deployment Risk and Resilience Inventory-2 (DRRI-2): An updated tool for assessing psychosocial risk and resilience factors among service members and veterans. *Journal of Traumatic Stress, 26,* 710-717. https://doi.org/ 10.1002/jts.21868

Voigt, R., Camp, N. P., Prabhakaran, V., Hamilton, W. L., Hetey, R. C., Griffiths, C. M., ... & Eberhardt, J. L. (2017). Language from police body camera footage shows racial disparities in officer respect. *Proceedings of the National Academy of Sciences*, *114*(25), 6521-6526. https://doi.org/ 10.1073/pnas.1702413114

Walker, J., Archer, J., & Davies, M. (2005). Effects of male rape on psychological functioning. *British Journal of Clinical Psychology*, 44, 445−451. https://doi.org/ 10.1348/014466505X52750

Webb, N. M., Shavelson, R. J., & Haertel, E. H. (2006). 4 reliability coefficients and generalizability theory. *Handbook of Statistics, 26,* 81-124. https://doi.org/ 10.1016/S0169-7161(06)26004-8

Wenger, J.W., O'Connell, C., & Cottrell L., (2018). Examination of recent deployment experience across the services and components. *RAND Corporation,*1-12. https://doi.org/ 10.7249/RR1928

Williams, I., & Bernstein, K. (2011). Military sexual trauma among US female veterans. *Archives of Psychiatric Nursing*, *25,* 138-147. https://doi.org/ 10.1016/j.apnu.2010.07.003

Willness, C. R., Steel, P., & Lee, K. (2007). A meta-analysis of the antecedents and consequences of workplace sexual harassment. *Personnel Psychology, 60,* 127-162. https://doi.org/ 10.1111/j.1744-6570.2007.00067.x

Zahran, H. S., Kobau, R., Moriarty, D. G., Zack, M. M., Holt, J., & Donehoo, R. (2005). Health-related quality of life surveillance—United States, 1993–2002. *Morbidity and Mortality Weekly Report: Surveillance Summaries, 54*(4), 1-35.

APPENDIX A

NOTFICIATION STATEMENT FOR ODU STUDENT VETERANS

NOTIFICATION STATEMENT DOCUMENT

OLD DOMINION UNIVERSITY
PROJECT TITLE: Military Sexual Trauma in Reintegrating Veterans

INTRODUCTION

The purposes of this form are to give you information that may affect your decision whether to say YES or NO to participation in this research. This is an online survey study.

RESEARCHERS

Michelle L. Kelley, Ph.D., Principal Investigator, Old Dominion University, Psychology Department

Rachel Davies, B.S., Virginia Consortium Program in Clinical Psychology

DESCRIPTION OF RESEARCH STUDY

This study is interested in learning more about veterans' experiences in the military that include military sexual trauma and combat exposure. Additionally, mental health issues, personality factors, and reintegration difficulties are assessed. If you say YES, the survey will take approximately 20 minutes to complete. Approximately 1,000 veterans will participate in this study.

EXCLUSIONARY CRITERIA

To be eligible for this study you must be at least 18 years of age or older and have served in the U.S. military or be currently serving in the U.S. military.

RISKS AND BENEFITS

RISKS: Some of the questions ask about sensitive experiences that you may have had. These include questions about trauma experiences during combat, mental health concerns, and substance use. In addition, former military members will be asked their experiences transitioning from the military to the civilian sector. Some people find that thinking about past experiences can cause

negative feelings. It is possible that you may become emotionally upset by some questions. If you feel discomfort, you may take a break and come back to the survey, choose not to answer any questions, or stop the survey. At the end of the survey all participants will be provided a list of resources. This study is anonymous.

BENEFITS: There are no benefits to you directly, however, your participation may help increase our understanding. The information gathered from this study will be reported in summarized form.

COSTS AND PAYMENTS

There are no costs to participating in this study. Participants who are students actively enrolled at Old Dominion University may receive .5 research credit point through the SONA system for a psychology course. We advise before completing the survey, that you check with your course instructors as to whether or not any additional extra credit will be given for completing the survey. For ODU students, research credits may be obtained in other ways. You do not have to participate in this study, or any study, in order to obtain research credit.

NEW INFORMATION

If the researchers find new information during this study that would reasonably change your decision about participating, then they will give it to you.

ANONYMITY

All information obtained about you in this study is strictly anonymous unless disclosure is required by law. The researchers will take reasonable steps to keep your information anonymous. There will be no identifiers associated with your information. The results of this study may be used in reports, presentations, and publications, but the researchers will not identify you.

WITHDRAWAL PRIVILEGE

It is OK for you to say NO. Even if you say YES now, you are free to say NO later, and walk away or withdraw from the study at any time. Your decision will not affect your relationship with Old Dominion University, or otherwise cause a loss of benefits to which you might otherwise be entitled.

COMPENSATION FOR ILLNESS AND INJURY

If you say YES, then your consent in this document does not waive any of your legal rights. However, in the event of harm arising from this study, neither Old Dominion University nor the researchers are able to give you any money, insurance coverage, free medical care, or any other compensation for such injury. In the event that you suffer injury as a result of participation in any research project, you may contact Dr. Michelle L. Kelley at 757-683-4459, Dr. Tancy Vandecar-Burdin the current IRB chair at 757-683-3802 at Old Dominion University, or the Old Dominion University Office of Research at 757-683-3460 who will be glad to review the matter with you.

VOLUNTARY PARTICIPATION

By clicking "I read the notification statement" and "yes, I wish to participate", you are saying several things. You are saying that you have read this form or have had it read to you, that you are satisfied that you understand this form, the research study, and its risks and benefits. The researchers should have answered any questions you may have had about the research. If you have any questions later on, then the researchers should be able to answer them:

Dr. Michelle L. Kelley at mkelley@odu.edu or 757-683-4459

Ms. Rachel Davies at rdavi022@odu.edu or 757-683-6602

If at any time you feel pressured to participate, or if you have any questions about your rights or this form, then you should call Dr. Tancy Vandecar-Burdin, the current IRB chair, at 757-683-3802, or the Old Dominion University Office of Research, at 757 683 3460.

And importantly, by clicking "I read the notification statement" and "yes, I wish to participate", you are telling the researcher YES, that you agree to participate in this study.

APPENDIX B

NOTIFICATION STATEMENT FOR NON-STUDENT VETERANS

NOTIFICATION STATEMENT DOCUMENT

OLD DOMINION UNIVERSITY
PROJECT TITLE: Military Sexual Trauma in Reintegrating Veterans

INTRODUCTION

The purposes of this form are to give you information that may affect your decision whether to say YES or NO to participation in this research. This is an online survey study.

RESEARCHERS

Michelle L. Kelley, Ph.D., Principal Investigator, Old Dominion University, Psychology Department

Rachel Davies, B.S., Virginia Consortium Program in Clinical Psychology

DESCRIPTION OF RESEARCH STUDY

This study is interested in learning more about veterans' experiences in the military that include military sexual trauma and combat exposure. Additionally, mental health issues, personality factors, and reintegration difficulties are assessed. If you say YES, the survey will take approximately 20 minutes to complete. Approximately 1,000 veterans will participate in this study.

EXCLUSIONARY CRITERIA

To be eligible for this study you must be at least 18 years of age or older and have served in the U.S. military or be currently serving in the U.S. military.

RISKS AND BENEFITS

RISKS: Some of the questions ask about sensitive experiences that you may have had. These include questions about trauma experiences during combat, mental health concerns, and substance use. In addition, former military members will be asked their experiences transitioning from the military to the civilian sector. Some people find that thinking about past experiences can cause negative feelings. It is possible that you may become emotionally upset by some questions. If you

feel discomfort, you may take a break and come back to the survey, choose not to answer any questions, or stop the survey. At the end of the survey all participants will be provided a list of resources. This study is anonymous.

BENEFITS: There are no benefits to you directly, however, your participation may help increase our understanding. The information gathered from this study will be reported in summarized form.

COSTS AND PAYMENTS

There are no costs to participating in this study. While there are no direct benefits to you as a participant, the current study may help us develop effective strategies for helping military members transition successfully from active duty and develop strategies in treating different mental health outcomes in military service members (e.g., depression).

NEW INFORMATION

If the researchers find new information during this study that would reasonably change your decision about participating, then they will give it to you.

ANONYMITY

All information obtained about you in this study is strictly anonymous unless disclosure is required by law. The researchers will take reasonable steps to keep your information anonymous. There will be no identifiers associated with your information. The results of this study may be used in reports, presentations, and publications, but the researchers will not identify you.

WITHDRAWAL PRIVILEGE

It is OK for you to say NO. Even if you say YES now, you are free to say NO later, and walk away or withdraw from the study at any time. Your decision will not affect your relationship with Old Dominion University, or otherwise cause a loss of benefits to which you might otherwise be entitled.

COMPENSATION FOR ILLNESS AND INJURY

If you say YES, then your consent in this document does not waive any of your legal rights. However, in the event of harm arising from this study, neither Old Dominion University nor the researchers are able to give you any money, insurance coverage, free medical care, or any other compensation for such injury. In the event that you suffer injury as a result of participation in any

research project, you may contact Dr. Michelle L. Kelley at 757-683-4459, Dr. Tancy Vandecar-Burdin the current IRB chair at 757-683-3802 at Old Dominion University, or the Old Dominion University Office of Research at 757-683-3460 who will be glad to review the matter with you.

VOLUNTARY PARTICIPATION

By clicking "I read the notification statement" and "yes, I wish to participate", you are saying several things. You are saying that you have read this form or have had it read to you, that you are satisfied that you understand this form, the research study, and its risks and benefits. The researchers should have answered any questions you may have had about the research. If you have any questions later on, then the researchers should be able to answer them:

Dr. Michelle L. Kelley at mkelley@odu.edu or 757-683-4459

Ms. Rachel Davies at rdavi022@odu.edu or 757-683-6602

If at any time you feel pressured to participate, or if you have any questions about your rights or this form, then you should call Dr. Tancy Vandecar-Burdin, the current IRB chair, at 757-683-3802, or the Old Dominion University Office of Research, at 757 683 3460.

And importantly, by clicking "I read the notification statement" and "yes, I wish to participate", you are telling the researcher YES, that you agree to participate in this study.

APPENDIX C

DEMOGRAPHIC QUESTIONNAIRE

1. How old are you? _____

2. What is your current military status? Please only select one.
    a. Active duty
    b. Veteran
    c. Reserves
    d. National Guard
    e. Retired

3. What is the acronym for the locations where final physicals are taken prior to shipping off for basic training? _____

4. What is the acronym for the generic term the military uses for various job fields? _____

5. What branch(es) of the military did you serve in or are you currently serving in? Please check all that apply.
    ( ) Army
    ( ) Navy
    ( ) Air Force
    ( ) Marines
    ( ) Coast Guard
    ( ) National Guard
    ( ) Army Reserves
    ( ) Air Force Reserves
    ( ) Navy Reserves
    ( ) Marine Reserves
    ( ) Other (please specify) _____

6. How long ago, in years, has it been since you have been discharged from the military? _____
7. How long ago, in years, has it been since your last deployment?_____
8. What best describes your highest educational level?
    () Some high school
    () High school graduate/GED/home school certificate
    () Some college
    () Associate's degree
    () Bachelor's degree

() Master's degree
() Doctoral/Professional degree

9. What is your gender?
( ) Male
( ) Female
( ) Transgender
( ) Other (please specify) _____

10. My ethnicity is (choose one):

( ) Black, African American, Afro-Caribbean, Black African, Other in this category.
( ) Caucasian, White, European American, White European, Other in this category.
( ) East Asian, Asian American, Amerasian, Asian-Caribbean, Other in this category.
( ) Latinx/o/a, Hispanic, Spanish, Latin American, of Spanish speaking- South American/Caribbean heritage, Other in this category.
( ) South Asian, South Asian American, of South Asian heritage, Other in this category.
( ) Middle Eastern, Arab, Non-Black North African, Other in this category.
( ) Coloured-South African, Khoi San, Cape Malay, Other in this category.

11. What is your marital status? Check all that apply.
    a. Single, never been married
    b. Single, dating but no one in particular
    c. Single, dating one person
    d. Cohabitating, but not married
    e. Married
    f. Separated
    g. Divorced
    h. Widowed

APPENDIX D

MILITARY SEXUAL TRAUMA

1. While you were in the military did you receive any uninvited and unwanted sexual attention such as touching, cornering, pressure for sexual favors, or inappropriate verbal remarks?
   ( ) Yes
   ( ) No

a. What was your relationship to this person(s)? Check all that apply.

   a. Stranger
   b. Friend or acquaintance
   c. Relative
   d. Non-military dating partner/boyfriend/girlfriend
   e. Spouse
   f. Military coworker
   g. Military supervisor
   h. Other (Please specify) _____

b. (If military coworker or military supervisor was picked) Were you in a romantic or intimate relationship with this person?

   a. Yes
   b. No

c. Think of your most distressing instance involving uninvited and unwanted sexual attention (e.g., touching, cornering, pressure for sexual favors, or inappropriate verbal remarks), what was your relationship to this person? (Please check only one).

   a. Stranger
   b. Friend or acquaintance
   c. Relative
   d. Non-military dating partner/boyfriend/girlfriend
   e. Spouse
   f. Military coworker
   g. Military supervisor
   h. Other (Please specify) _____
   i.

d. (If military coworker or military supervisor was picked) Were you in a romantic or intimate relationship with this person?

   a. Yes
   b. No

2. While you were in the military, did anyone ever use force or the threat of force to have sexual contact with you against your will?
   ( ) Yes
   ( ) No

a. What was your relationship to this person(s)? Check all that apply.

a. Stranger
b. Friend or acquaintance
c. Relative
d. Non-military dating partner/boyfriend/girlfriend
e. Spouse
f. Military coworker
g. Military supervisor
h. Other (Please specify) _____

b. (If military coworker or military supervisor was picked) Were you in a romantic or intimate relationship with this person?

a. Yes
b. No

c. Think of your most distressing instance involving force or threat of force to have sexual contact against your will, what was your relationship to this person? (Please check only one).

j. Stranger
k. Friend or acquaintance
l. Relative
m. Non-military dating partner/boyfriend/girlfriend
n. Spouse
o. Military coworker
p. Military supervisor
q. Other (Please specify) _____

d. (If military coworker or military supervisor was picked) Were you in a romantic or intimate relationship with this person?

a. Yes
b. No

3. After your departure from the military, did you receive any uninvited and unwanted sexual attention such as touching, cornering, pressure for sexual favors, or inappropriate verbal remarks?

( ) Yes
( ) No

a. What was your relationship to this person(s)? Check all that apply.

a. Stranger
b. Friend or acquaintance
c. Relative
d. Dating partner/boyfriend/girlfriend
e. Spouse
f. Other (Please specify) _____

4. After your departure from the military, did anyone ever use force or the threat of force to have sexual contact with you against your will?

( ) Yes
( ) No

a. What was your relationship to this person(s)? Check all that apply.

a. Stranger
b. Friend or acquaintance
c. Relative
d. Dating partner/boyfriend/girlfriend
e. Spouse
f. Other (Please specify) _____

APPENDIX E

REINTEGRATION DIFFICULITIES

Military to Civilian Questionnaire

Over the past 12 months, have you had difficulty with. . .

Participants use the following response scale.

0 = No difficulty
1 = A little difficulty
2 = Some difficulty
3 = A lot of difficulty
4 =Extreme difficulty

1. Dealing with people you do not know well (such as acquaintances or strangers)?
2. Making new friends?
3. Keeping up friendships with people who have no military experience?
4. Keeping up friendships with people who have military experiences (including friends who are active duty or veterans)?
5. Getting along with relatives (such as siblings, parents, grandparents, in-laws and children not living at home)?
6. Getting along with your spouse or partner (such as communicating, doing things together, enjoying his or her company)?
7. Getting along with your child or children (such as communicating, doing things together, enjoying his or her company)?
8. Finding or keeping a job (paid or nonpaid or self-employment)?
9. Doing what you need to do for work or school?
10. Taking care of your chores at home (such as housework, yard work, cooking, cleaning, shopping, errands)?
11. Taking care of your health (such as exercising, sleeping, bathing, eating well, taking medications as needed)?
12. Enjoying or making good use of free time?
13. Taking part in community events or celebrations (for example, festivals, PTA meetings, religious or other activities)?
14. Feeling like you belong in “civilian” society?
15. Confiding or sharing personal thoughts and feelings?
16. Finding meaning or purpose in life?

Respondents can indicate “Does not apply” for the four items that assess relationship with spouse/partner, relationship with child/children, work, and school functioning.

APPENDIX F

DEPRESSIVE SYMPTOMS

Center for Epidemiological Studies Depression Scale (CES-D)

Below is a list of ways you may have felt or behaved. Please indicate how often you have felt this way during the **PAST WEEK**.

0 = Rarely or none of the time (less than 1 day)
1 = Some or a little of the time (1-2 days)
2 = Occasionally or a moderate amount of time (3-4 days)
3 = Most or all of the time (5-7 days)

1. I was bothered by things that usually don't bother me
2. I had trouble keeping my mind on what I was doing
3. I felt depressed
4. I felt that everything I did was an effort
5. I felt hopeful about the future
6. I thought my life had been a failure
7. I felt fearful
8. My sleep was restless
9. I was happy
10. I could not get "going"

APPENDIX G

LOCUS OF CONTROL

The I-E Scale

1. a. Children get into trouble because their parents punish them too much.

b. The trouble with most children nowadays is that their parents are too easy with them.

2. a. Many of the unhappy things in people's lives are partly due to bad luck

b. People's misfortunes result from the mistakes they make.

3. a. One of the major reasons why we have wars is because people don't take enough interest in politics.

b. There will always be wars, no matter how hard people try to prevent them.

4. a. In the long run people get the respect they deserve in this world.

b. Unfortunately, an individual's worth often passes unrecognized no matter how hard he tries.

5. a. The idea that teachers are unfair to students is nonsense.

b. Most students don't realize the extent to which their grades are influenced by accidental happenings.

6.a. Without the right breaks one cannot be an effective leader.

b. Capable people who fail to become leaders have not taken advantage of their opportunities.

7. a. No matter how hard you try some people just don't like you.

b. People who can't get others to like them don't understand how to get along with others.

8. a. Heredity plays the major role in determining one's personality.

b. It is one's experiences in life which determine what they're like.

9. a. I have often found that what is going to happen will happen.

b. Trusting to fate has never turned out as well for me as making a decision to take a definite course of action.

10. a. In the case of the well prepared student there is rarely if ever such a thing as an unfair test.

b. Many times exam questions tend to be so unrelated to course work that studying is really useless.

11. a. Becoming a success is a matter of hard work, luck has little or nothing to do with it.

b. Getting a good job depends mainly on being in the right place at the right time.

12. a. The average citizen can have an influence in government decisions.

b. This world is run by the few people in power, and there is not much the little guy can do about it.

13. a. When I make plans, I am almost certain that I can make them work.

b. It is not always wise to plan too far ahead because many things turn out to be a matter of good or bad fortune anyhow.

14. a. There are certain people who are just no good.

b. There is some good in everybody.

15. a. In my case getting what I want has little or nothing to do with luck.

b. Many time we might just as well decide what to do by flipping a coin.

16. a. Who gets to be the boss often depends on who was lucky enough to be in the right place first.

b. Getting people to do the right things depends upon ability, luck has little or nothing to do with it.

17. a. As far as world affairs are concerned, most of us are the victims of forces we can neither understand, nor control.

b. By taking an active part in political and social affairs the people can control world events.

18. a. Most people don't realize the extent to which their lives are controlled by accidental happenings.

b. There really is no such thing as "luck."

19. a. One should always be willing to admit mistakes.

b. It is usually best to cover up one's mistakes.

20. a. It is hard to know whether or not a person really likes you.

b. How many friends you have depends upon how nice a person you are.

21. a. In the long run the bad things that happen to us are balanced by the good ones.

b. Most misfortunes are the result of lack of ability, ignorance, laziness, or all three.

22. a. With enough effort we can wipe out political corruption.

b. It is difficult for people to have much control over the things politicians do in office.

23. a. Sometimes I can't understand how teachers arrive at the grades they give.

b. There is a direct connection between how hard I study and the grades I get.

24. a. A good leader expects people to decide for themselves what they should do.

b. A good leader makes it clear to everybody what their jobs are.

25. a. Many times I feel that I have little influence over the things that happen to me.

b. It is impossible for me to believe that chance or luck plays an important role in my life.

26. a. People are lonely because they don't try to be friendly.

b. There's not much use in trying too hard to please people, if they like you, they like you.

27. a. There is too much emphasis on athletics in high school.

b. Team sports are an excellent way to build character.

28. a. What happens to me is my own doing.

b. Sometimes I feel that I don't have enough control over the direction my life is taking.

29. a. Most of the time I can't understand why politicians behave the way they do.

b. In the long run the people are responsible for bad government on national as well as on a local level.

APPENDIX H

COMBAT EXPOSURE

Deployment Risk and Resilience Inventory (DRRI-2), Combat Exposure subscale

The statements below are about your combat experiences during your most recent deployment. As used in these statements, the term "unit" refers to those you lived and worked with on a daily basis during deployment. Please mark how often you experienced each circumstance.

Participants use the following response scale.
1 = Never
2 = Once or Twice
3 = Several times over entire deployment
4 = A few times each month
5 = A few times each week
6 = Daily or almost daily

While deployed…

1. I went out on combat patrols or missions.
2. I took part in an assault on entrenched or fortified positions that involved naval and/or land forces.
3. I personally witnessed someone from my unit or an ally unit being seriously wounded or killed.
4. I encountered land or water mines, booby traps, or roadside bombs (for example, IEDs).
5. I was exposed to hostile incoming fire.
6. I was exposed to "friendly" incoming fire.
7. I was in a vehicle (for example, a "Humvee", helicopter, or boat) or part of a convoy that attacked.
8. I was part of a land or naval artillery unit that fired on enemy combatants.
9. I personally witnessed enemy combatants being seriously wounded or killed.
10. I personally witnessed civilians (for example, women and children) being seriously wounded or killed.
11. I was injured in a combat-related incident.
12. I fired my weapon at enemy combatants.
13. I think I wounded or killed someone during combat operations.
14. I was involved in locating or disarming explosive devices.
15. I was involved in searching or clearing homes, buildings, or other locations.
16. I participated in hand-to-hand combat.
17. I was involved in searching and/or disarming potential enemy combatants.

APPENDIX I

CHILDHOOD SEXUAL ABUSE

Childhood Experience of Care and Abuse Questionnaire (CECA-Q)

1. When you were a child or teenager did you ever have any unwanted sexual experiences?
    a) Yes
    b) No
    c) Unsure
2. Did anyone force you or persuade you to have sexual intercourse against your wishes before age 17?
    a) Yes
    b) No
    c) Unsure

3. Can you think of any upsetting sexual experiences before age 17 with a related adult or someone in authority (e.g., teacher?)
    a) Yes
    b) No
    c) Unsure

With each positive indication for any of the three items, the following prompt will follow.

a. How old were you when it began? _____

b. Was the other person someone you knew?
    1) Yes
    2) No

c. Was the other person a relative?
    1) Yes
    2) No

d. Did the other person live in your household?
    1) Yes
    2) No

e. Did this person do it to you on more than one occasion?
    1) Yes
    2) No

f. Did it involve touching private parts of your body?
    1) Yes
    2) No

g. Did it involve touching private parts of the other person's body?
    1) Yes
    2) No

h. Did it involve sexual intercourse?
    1) Yes
    2) No

APPENDIX J

ATTENTION CHECK ITEMS

1. Please choose "Some or a little of the time" for this question.

   A. Rarely or none of the time

   B. Some or a little of the time

   C. Occasionally or a moderate amount of the time

   D. Most or all of the time

2. Please choose " A lot of difficulty" for this question.

   A. No difficulty

   B. A little difficulty

   C. Some difficulty

   D. A lot of difficulty

   E. Extreme difficulty

3. Please pick the animal out of the list.

   A. Cabin

   B. Frog

   C. Ballet

   D. Orange

APPENDIX K

RESOURCES FOR ASSISTANCE

If any questions left you feeling uncomfortable or upset and you would like further assistance, please contact any of the following resources.

- Veterans Crisis Line for suicidal thoughts
    - Phone: 1-800-273-8255, Press 1
    - Text: 83255
- Veteran Combat Call Center to reach a veteran 24/7 to talk about problems adjusting to civilian life, military history, and any other issues you have with another veteran
    - Phone: 1-877-WAR-VETS
- Lifeline for Vets that connects veterans needing assistance with other veterans
    - Phone: 888-777-4443
- SAMHSA's National Hotline for alcohol or drug abuse concerns
    - Phone: 1-800-662-4357
- National Sexual Assault Hotline
    - 1-800-656-4673

If ODU student

- The ODU Counseling Center is an available resource to all students.
    - Phone: 757-683-4401.

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Select Publications

Kelley, K. L., Bravo, A. J., **Davies, R. L.,** Hamrick, H. C., Vinci C., Redman, J.C. (2019). Moral injury and suicidality among combat-wounded veterans: The moderating effects of social connectedness and self-compassion. *Psychological Trauma: Theory, Research, Practice, and Policy, 11*(6), 621-629. https://doi.org/ 10.1037/tra0000447.

Davies, R.L., Prince, M.A., Bravo, A. J., Kelley, M. L., Crain, T. L. (2019). Moral injury, substance use, and PTSD symptoms among military personnel: An examination of trait mindfulness as a moderator. *Journal of Traumatic Stress, 32*(3), 414-423. https://doi.org/ 10.1002/jts.22403

Select Presentations

Davies, R. L., Hamrick, H.C., Ehlke, S. J., Higgins, J., & Kelley, M. L. (2020, August 6-9). *Moral injury's mediation effects between unwanted sexual attention and mental health outcomes* [Poster presentation]. American Psychological Association 2020, Convention, Washington D.C. https://convention.apa.org/

Davies, R. L., Golembiewski, L., & Kelley, M. L. (2020, June 1). *The mediation effects of PTSD on the Relation between moral injury and reintegration in veterans* [Poster presentation]. 32nd American Psychological Sciences Annual Convention, Chicago, IL. https://www.psychologicalscience.org/conventions/annual